

Transcript of the Testimony of

**BRENT POOLER**

November 21, 2022

AUGUST J. LEVERT, JR. FAMILY, LLC, ET AL v. BP AMERICA  
PRODUCTION COMPANY



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18TH JUDICIAL DISTRICT COURT  
FOR THE PARISH OF ST. MARY  
STATE OF LOUISIANA

AUGUST J. LEVERT, JR. NO. 78953  
FAMILY, LLC, ET AL  
DIVISION "A"

VERSUS

BP AMERICA PRODUCTION  
COMPANY

VIDEOCONFERENCE AND VIDEOTAPED DEPOSITION  
OF BRENT POOLER, 1015 Landrich Lane, Broussard,  
Louisiana 70518, taken at LISKOW & LEWIS, 822  
HARDING STREET, LAFAYETTE, LOUISIANA 70503, in  
the above-entitled cause on the 21st of  
November, 2022 commencing at 9:08 a.m.

REPORTED BY: CHERIE' E. WHITE  
CCR (LA), CSR (TX), CSR (MS), RPR  
CERTIFIED COURT REPORTER

2

1 APPEARANCES:  
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4  
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3

1 ALSO PRESENT:  
2 Stewart L. Stover, Jr. (Via Zoom)  
3 John Frazier  
4 Court Van Tassell, Esq. (Via Zoom)  
5 Denice Redd-Robinette, Esq.  
6 Mark Deethardt, Esq.  
7 Matthew Greene, Esq.  
8 Shawn Royston, Videographer, Depo-Vue  
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1           S T I P U L A T I O N  
2  
3           IT IS HEREBY STIPULATED AND AGREED by and  
4 between counsel for the parties hereto that the  
5 deposition of the aforementioned witness is  
6 hereby being taken under the Louisiana Code of  
7 Civil Procedure, Article 1421, et seq., for all  
8 purposes, in accordance with law;  
9           That the formalities of reading and signing  
10 are specifically NOT waived;  
11           That the formalities of sealing,  
12 certification and filing are specifically waived;  
13           That all objections, save those as to form  
14 of the question and the responsiveness of the  
15 answer, are hereby reserved until such time as  
16 this deposition, or any part thereof, may be used  
17 or sought to be used in evidence.  
18  
19                   \* \* \* \* \*  
20  
21           CHERIE E. WHITE, Certified Court Reporter,  
22 in and for the Parish of Orleans, State of  
23 Louisiana, officiated in administering the oath.  
24  
25

7

1           A. I'm well. Thank you. How are you?  
2           Q. Good. Good. Could you please state  
3 your full name for the record?  
4           A. Brent Pooler.  
5           Q. Where do you reside?  
6           A. Home address?  
7           Q. Yes.  
8           A. Would be 1015 Landrich Lane in  
9 Broussard, Louisiana.  
10          Q. How are you currently employed?  
11          A. I am a geologist with  
12 Hydro-Environmental Technology in Scott.  
13          MR. HUDDLELL:  
14             Okay. I've marked as Exhibit 1 the  
15 Notice of Deposition.  
16          (Exhibit 1 marked and tendered.)  
17          MR. HUDDLELL:  
18             I wanted to mark as Exhibit 2 your  
19 resume'.  
20          (Exhibit 2 marked and tendered.)  
21 BY MR. HUDDLELL:  
22          Q. Exhibit 2 is a fairly up-to-date  
23 resume'?  
24          A. Yes.  
25          Q. Looking through your list of

6

1           THE VIDEOGRAPHER:  
2             This is the videotaped deposition of  
3 Brent Pooler. This deposition is being  
4 held at 822 Harding Street, Lafayette  
5 Louisiana on November 21st, 2022, at  
6 9:08 a.m. taken in the matter of August J.  
7 Levert, Jr. Family, et al versus BP  
8 America Production Company in the 18th  
9 Judicial District Court for the Parish of  
10 Iberville, State of Louisiana, No. 78958,  
11 Division A.  
12             I am Shawn Royston, the  
13 videographer, appearing for Depo-Vue. The  
14 court reporter is Cherie' White appearing  
15 for Amerson White. All counsel present  
16 will be indicated on the stenographic  
17 record.  
18             BRENT POOLER,  
19 1015 LANDRICH LANE IN BROUSSARD, LOUISIANA 70518,  
20 after having first been duly sworn by the  
21 above-mentioned Court Reporter did testify as  
22 follows:  
23 EXAMINATION BY MR. HUDDLELL:  
24          Q. Good morning, Mr. Pooler. How are  
25 you today?

8

1           depositions and testimonies, can you tell me in  
2 which of -- in which of these cases, if any,  
3 you've been involved with limited admission?  
4           A. None of the cases listed on my CV  
5 made a limited admission, as I recall.  
6           Q. Okay. There was a limited admission  
7 in the Hero Lands case, but that was -- that was  
8 for a defendant that -- that you were not  
9 representing at that point, right?  
10          A. That's correct.  
11          Q. Okay. Okay. Besides the case we  
12 are here for today, what other cases have you  
13 been involved in that -- that included a limited  
14 admission?  
15          A. Well, our company was involved in  
16 the limited admission in the Agri-South case, so  
17 as far as assisting in that role, Smokey  
18 testified, my boss, Stewart Stover, Smokey,  
19 testified in that limited admission, but I did  
20 not.  
21          Q. Okay. Can you think of any others?  
22          A. Not right off the top of my head,  
23 no.  
24          Q. In Guidry versus BP?  
25          A. Oh, yeah.

9

1 Q. There was -- there was a limited  
 2 admission, right?  
 3 A. That's correct. Thank you for  
 4 reminding me on that. We made a limited  
 5 admission, but I understand that it may have  
 6 settled otherwise shortly after the limited  
 7 admission was filed.  
 8 Q. Okay. Can you think of any others?  
 9 A. If I forgot Guidry, probably not.  
 10 Q. Okay. All right.  
 11 A. And, again, the reason that wasn't  
 12 on my list, we filed the limited admission, but  
 13 it -- it didn't go through the hearing process.  
 14 Q. Right. And I don't think you -- you  
 15 didn't give a deposition in that case.  
 16 MR. HUDDLELL:  
 17 I marked as Exhibit 3 the limited  
 18 admission for this case.  
 19 (Exhibit 3 marked and tendered.)  
 20 BY MR. HUDDLELL:  
 21 Q. Have you seen that before?  
 22 A. Yes, sir.  
 23 Q. Okay. Did -- did you have any  
 24 involvement in any aspect of the limited  
 25 admission? For example, were you -- were you

11

1 that you would have been consulted about the  
 2 scope of your limited admission?  
 3 A. Depending on your question per se,  
 4 but in general we discussed the environmental  
 5 conditions of the limited admission. I don't  
 6 recall being involved in discussions of the  
 7 limited admission itself.  
 8 Q. As far as the -- the -- as far as  
 9 the areas for which the limited admission would  
 10 apply, were you consulted about that?  
 11 MR. TROUTMAN:  
 12 Object to the form.  
 13 THE WITNESS:  
 14 We discussed the areas and the  
 15 environmental conditions, but -- as it  
 16 pertains to our report, yes.  
 17 BY MR. HUDDLELL:  
 18 Q. Okay. If you can turn to page 4 of  
 19 the limited admission and paragraph 17. Do you  
 20 see that?  
 21 A. I don't have a copy of it in front  
 22 of me.  
 23 Q. Oh. Yeah. It --  
 24 A. Oh, of this document itself?  
 25 Q. Yeah.

10

1 consulted about whether BP should make a limited  
 2 admission?  
 3 MR. TROUTMAN:  
 4 Object to the form.  
 5 THE WITNESS:  
 6 No. I did not make the decision --  
 7 MR. HUDDLELL:  
 8 Okay.  
 9 THE WITNESS:  
 10 -- on whether or not to file a  
 11 limited admission.  
 12 BY MR. HUDDLELL:  
 13 Q. Well, were you -- were you asked  
 14 about it before that happened?  
 15 A. Not that I recall in the decision  
 16 process, no.  
 17 Q. Okay. Were you consulted with  
 18 respect to the scope of the limited admission?  
 19 MR. TROUTMAN:  
 20 Object to the form.  
 21 THE WITNESS:  
 22 Yes. Within the context of our  
 23 report, yes.  
 24 BY MR. HUDDLELL:  
 25 Q. Do you know when it would have been

12

1 A. Oh, okay. I thought you were  
 2 referring to our report based on what you were  
 3 doing. Sorry.  
 4 Q. No. Well, and -- and just -- just  
 5 so we are clear, this -- this document that we  
 6 have marked as Exhibit 3, this is the BP  
 7 Production Company's Limited Admission of  
 8 Environmental Damage Pursuant to LARS 30:29,  
 9 right?  
 10 A. That's correct.  
 11 Q. And it includes an exhibit A, which  
 12 shows the locations of the three limited  
 13 admission areas, right?  
 14 A. It does, yes.  
 15 Q. Okay. And -- and then it -- also on  
 16 the following pages, it has an a memorandum in  
 17 support of -- of the motion for referral to the  
 18 Department of Natural Resources; is that right?  
 19 A. It appears so, yes.  
 20 Q. And -- and then the final three  
 21 pages are a proposed order with respect to the  
 22 limited admission, right?  
 23 A. It appears to be so, yes.  
 24 Q. Okay. Did you review any of this  
 25 Exhibit 3 before the limited admission was filed?

13

1 A. Not that I recall, no.  
 2 Q. Okay.  
 3 A. I mean, obviously the -- the figure  
 4 itself is an HET figure from our report that was  
 5 used in this, but I don't recall reviewing this  
 6 document before being filed.  
 7 Q. Okay. All right. So then let's --  
 8 let's go to page 4.  
 9 A. (Witness complied).  
 10 Q. And it has paragraph 17 at the top.  
 11 Do you see that?  
 12 A. Yes.  
 13 Q. Okay. Paragraph 17 says "Pursuant  
 14 to the provisions of Louisiana Code of Civil  
 15 Procedure Article 1563 and Act 312, BP makes a  
 16 limited admission of responsibility for  
 17 environmental damage in limited admission Areas  
 18 1, 2 and 3 depicted on the attached map, exhibit  
 19 A, and described as follows, right?  
 20 A. That's correct.  
 21 Q. Okay. And it's your understanding  
 22 that BP has indeed made a limited admission of  
 23 responsibility for environmental damage in  
 24 limited admission Areas 1, 2 and 3, right?  
 25 MR. TROUTMAN:

15

1 Again, that's my understanding, yes.  
 2 BY MR. HUDDLELL:  
 3 Q. Okay. And that understanding is not  
 4 just based on this legal document, but it's based  
 5 on the -- the discussions with counsel, right?  
 6 MR. TROUTMAN:  
 7 Object to the form.  
 8 THE WITNESS:  
 9 I understand that they have made a  
 10 limited admission. As far as a legal  
 11 conclusion as to whether there's  
 12 environmental damage or contamination or  
 13 otherwise and the definition of  
 14 environmental damage, that's a legal  
 15 conclusion --  
 16 MR. HUDDLELL:  
 17 Okay.  
 18 THE WITNESS:  
 19 -- that I'm not here to -- to opine  
 20 on.  
 21 BY MR. HUDDLELL:  
 22 Q. Okay. Well, we'll get to that, but  
 23 your -- your understanding from a -- from an  
 24 expert standpoint is that there is environmental  
 25 damage in the limited admission Areas 1, 2 and 3,

14

1 Object to the form.  
 2 THE WITNESS:  
 3 That's my understanding.  
 4 MR. HUDDLELL:  
 5 Okay. And what was your objection?  
 6 MR. TROUTMAN:  
 7 Calls for a legal conclusion.  
 8 BY MR. HUDDLELL:  
 9 Q. Well, is it your understanding that  
 10 BP has made a limited admission of responsibility  
 11 for environmental damage in limited admission  
 12 Areas 1, 2 and 3?  
 13 MR. TROUTMAN:  
 14 Object to the form.  
 15 THE WITNESS:  
 16 This is what the document says, yes.  
 17 BY MR. HUDDLELL:  
 18 Q. Okay. And but that's also something  
 19 -- aside from this document, you're aware that --  
 20 that BP has made a limited admission for  
 21 responsibility for environmental damage in  
 22 limited admission Areas 1, 2 and 3, right?  
 23 MR. TROUTMAN:  
 24 Object to the form.  
 25 THE WITNESS:

16

1 right?  
 2 MR. TROUTMAN:  
 3 Object to the form.  
 4 THE WITNESS:  
 5 I -- from an environmental aspect  
 6 and professional, I don't agree in the  
 7 sense that there is environmental damage  
 8 on the property with -- the constituents  
 9 that we have determined to be present on  
 10 site do not meet the definition that I  
 11 would as an environmental scientist have  
 12 as environmental damage.  
 13 There's not contamination on the  
 14 site and the limited admission, in -- in  
 15 my understanding, is to address a  
 16 regulatory condition for closure of the  
 17 pits.  
 18 MR. HUDDLELL:  
 19 Okay. Let's mark as Exhibit 4 your  
 20 expert report. Actually, this is your  
 21 Site Investigation Report and Proposed  
 22 Remediation Plan dated -- dated  
 23 November 3rd, 2022.  
 24 (Exhibit 4 marked and tendered.)  
 25 BY MR. HUDDLELL:

17

1 Q. Is Exhibit 4 your report?  
 2 A. Yes. It appears to be the text of  
 3 our report.  
 4 Q. There -- there are three different  
 5 signatures on this document. One of them is  
 6 yours. Can you tell me what aspect of the report  
 7 you had responsibility for?  
 8 A. I was involved in every aspect of  
 9 the report with Matt Greene taking primacy or a  
 10 primary role on the root zone.  
 11 Q. And what role did Smokey Stover  
 12 have?  
 13 A. Smokey played a role overseeing the  
 14 project and has historically helped with  
 15 groundwater in a depositional environment. In  
 16 this particular case, I was involved in every  
 17 aspect of that as well, though.  
 18 Q. Are there any parts of the report  
 19 that -- that you believe Mr. Stover would be more  
 20 appropriate to address questions to?  
 21 A. Not necessarily, no.  
 22 Q. And what about with respect to  
 23 Mr. Greene?  
 24 A. Yes. I would feel that Matt would  
 25 take a primary role on the conclusions as far as

19

1 I am, yes.  
 2 BY MR. HUDDALL:  
 3 Q. And is it your opinion that there is  
 4 no environmental damage within limited admission  
 5 Areas 1, 2 and 3?  
 6 MR. TROUTMAN:  
 7 Object to the form.  
 8 THE WITNESS:  
 9 To the extent that that requests a  
 10 legal definition or a legal requirement,  
 11 then that's -- that's outside of my  
 12 purview, but at the same time from a  
 13 professional, an environmental  
 14 professional, based on the definition,  
 15 there are, in any opinion -- there is not  
 16 environmental damage on the property  
 17 because of the fact that there are no  
 18 limitations to the use of the property and  
 19 otherwise.  
 20 It's my understanding that there may  
 21 be a regulatory piece of this for closure  
 22 of the pits, but my interpretation of that  
 23 from an environmental professional does  
 24 not meet the contamination, definition of  
 25 contamination.

18

1 the soil types that he mapped and the root zone  
 2 evaluation that he prepared. There are  
 3 references to it throughout the document, but the  
 4 primary section that Matt authored would be --  
 5 what is that, Section 4 possibly. No. Let's  
 6 see. Yes. Section 4, the root zone  
 7 investigation. Matt was the author of the root  
 8 zone investigation section.  
 9 Q. Can you turn to the executive  
 10 summary?  
 11 A. (Complied.) I'm there.  
 12 Q. In the -- sorry, the middle of the  
 13 page under History, it says "On October 21st,  
 14 2022, BP entered a limited admission of liability  
 15 for the environmental damage as defined by LARS  
 16 30:29 within limited admission Areas 1, 2 and 3  
 17 as illustrated on Figure 6 and further defined  
 18 below"; is that correct?  
 19 A. That's correct.  
 20 Q. So you are familiar with the  
 21 definition of environmental damage as it's  
 22 defined by 30:29; is that right?  
 23 MR. TROUTMAN:  
 24 Object to the form.  
 25 THE WITNESS:

20

1 BY MR. HUDDALL:  
 2 Q. Okay. And -- and that's -- that's  
 3 all I want is your -- your professional opinion  
 4 from an environmental professional standpoint.  
 5 That's more important than what the lawyers think  
 6 about it. I would -- I would represent that.  
 7 Now, and so you -- you do reference  
 8 the phrase "environmental damage" throughout your  
 9 report, correct?  
 10 A. It's in there, yes.  
 11 Q. Yeah. And -- and -- and you  
 12 reference the Act 312 or -- or RS 30:29 several  
 13 -- several times, correct?  
 14 A. Yes.  
 15 Q. Okay. And it was important to you  
 16 for drafting your report to understand what the  
 17 definition of environmental damage is under the  
 18 -- under the law, right?  
 19 MR. TROUTMAN:  
 20 Object to the form.  
 21 THE WITNESS:  
 22 Not necessarily. I mean, we were  
 23 doing an environmental assessment to  
 24 determine the regulatory status and  
 25 environmental -- overall environmental

21

1 conditions of the site. The legal  
 2 definition of environmental damage was not  
 3 something we relied upon necessarily.  
 4 BY MR. HUDDALL:  
 5 Q. Okay. So could you explain again  
 6 why is it that you don't believe from an  
 7 environmental professional standpoint that the  
 8 soil and/or groundwater in limited admission  
 9 Areas 1, 2 and 3 meet the definition of  
 10 environmental damage?  
 11 MR. TROUTMAN:  
 12 Object to the form.  
 13 THE WITNESS:  
 14 Well, from the context of my report  
 15 and -- and my understanding that the --  
 16 and without actually having the definition  
 17 in front of me recalling that from memory,  
 18 that environmental damage is predicate on  
 19 the presence of contamination; and  
 20 contamination is defined under 29-B as  
 21 that -- that would render the property  
 22 unusable for its intended purposes. None  
 23 of the constituent concentrations that we  
 24 have identified in the soil or groundwater  
 25 render the property unusable for its

23

1 damage or injury to environmental media caused by  
 2 contamination resulting from activities  
 3 associated with oilfield sites or exploration and  
 4 production sites. Environmental media shall  
 5 include, but not be limited to, soil, surface  
 6 water, groundwater or sediment"; is that right?  
 7 MR. TROUTMAN:  
 8 Object to the form.  
 9 THE WITNESS:  
 10 That's what it states, yes.  
 11 MR. HUDDALL:  
 12 What was your objection there?  
 13 MR. TROUTMAN:  
 14 Calls for a legal conclusion.  
 15 BY MR. HUDDALL:  
 16 Q. You understand that definition of  
 17 environmental damage, correct, Mr. Pooler?  
 18 MR. TROUTMAN:  
 19 Object to the form.  
 20 THE WITNESS:  
 21 Yes. Within my context of an  
 22 environmental professional, yes.  
 23 MR. HUDDALL:  
 24 Okay.  
 25 THE WITNESS:

22

1 intended purposes. And, frankly, the  
 2 concentrations that we have identified in  
 3 again both soil and groundwater meet  
 4 regulatory standards and the intent of our  
 5 plan is to conduct physical pit closures  
 6 with removal of some constituents as part  
 7 of department policy; and that that -- and  
 8 that those constituents and concentrations  
 9 do not meet the definition of my  
 10 understanding under 29-B of contamination.  
 11 BY MR. HUDDALL:  
 12 Q. I don't -- I don't think I'm going  
 13 to mark this as an exhibit, but just so that we  
 14 are on the same page as far as a definition of  
 15 environmental damage, we -- we printed out 30:29.  
 16 And it looks like if we go to page 5, we have --  
 17 we have got, like you said, the environmental  
 18 damage definition; and that incorporates also  
 19 this word contamination, right?  
 20 A. It does.  
 21 Q. And then -- and then contamination  
 22 is also defined, right?  
 23 A. It is, yes.  
 24 Q. Okay. And so environmental damage  
 25 "shall mean any actual or potential impact,

24

1 Not as a lawyer.  
 2 BY MR. HUDDALL:  
 3 Q. Okay. And so what you're saying is  
 4 that you don't believe that there's impact or you  
 5 don't believe there's any actual or potential  
 6 impact to environmental media caused by  
 7 contamination, right?  
 8 MR. TROUTMAN:  
 9 Object to the form.  
 10 THE WITNESS:  
 11 Again, my understanding under 29-B  
 12 in the -- as I stated a moment ago, that  
 13 there is not contamination on the  
 14 property.  
 15 MR. HUDDALL:  
 16 Right.  
 17 THE WITNESS:  
 18 And so as a result in my  
 19 understanding is it would not result in  
 20 environmental damage either wise -- either  
 21 from my perspective.  
 22 BY MR. HUDDALL:  
 23 Q. Okay. And then the definition of  
 24 contamination I believe is the same as in 29-B,  
 25 but --



25

1 A. Similar, if not the same.  
 2 Q. And you have worked with 29-B a lot  
 3 in your career, right?  
 4 A. Yes.  
 5 Q. And here contaminant means  
 6 "Introduction or presence of substance into  
 7 contaminants into a usable groundwater aquifer or  
 8 underground source of drinking water or soil in  
 9 such quantities as to render them unsuitable for  
 10 their reasonably and intended purposes"; is that  
 11 right?  
 12 MR. TROUTMAN:  
 13 Object to the form.  
 14 THE WITNESS:  
 15 That's correct. That's what this  
 16 document defines contamination as.  
 17 BY MR. HUDDALL:  
 18 Q. So starting with the soil first, you  
 19 don't believe there is -- there's soil -- you  
 20 don't believe that there is in the soil  
 21 substances or contaminants that would render the  
 22 soil unsuitable for its reasonably intended  
 23 purpose, right?  
 24 MR. TROUTMAN:  
 25 Object to the form.

27

1 Q. Okay. And that's true at all three  
 2 limited admission areas?  
 3 A. Yes. I don't know if you want this  
 4 back or not, but --  
 5 Q. Okay. Okay. With respect to the  
 6 soil, did -- did you find any constituents in any  
 7 of the three limited admission areas that exceed  
 8 any regulatory standard?  
 9 A. Yes. And the fact that we  
 10 identified constituents above the Chapter 3 pit  
 11 closure standards under 29-B and above the RECAP  
 12 screening standards, further evaluation of those  
 13 soil concentrations under RECAP has determined  
 14 that they would meet the MO-1 and/or MO-2  
 15 standards as further evaluation under RECAP per  
 16 Act 312, yes.  
 17 Q. Okay. Okay. In limited admission  
 18 Area 1, were there any exceedances of 29-B  
 19 standards in the soil?  
 20 MR. TROUTMAN:  
 21 Object to the form.  
 22 MR. HUDDALL:  
 23 What is your objection there?  
 24 MR. TROUTMAN:  
 25 Limited admission Area 1, they did

26

1 THE WITNESS:  
 2 That's correct.  
 3 BY MR. HUDDALL:  
 4 Q. Okay. And that's -- that's at all  
 5 three limited admission areas, correct?  
 6 A. Yes.  
 7 Q. And then with respect to  
 8 groundwater, you don't believe that there are  
 9 substances in the groundwater in such quantities  
 10 as to render the groundwater unsuitable for its  
 11 reasonably intended purpose, correct?  
 12 MR. TROUTMAN:  
 13 Object to the form.  
 14 THE WITNESS:  
 15 Yes. And in addition, the  
 16 definition of contamination states that  
 17 into a usable groundwater aquifer or an  
 18 underground source of drinking water.  
 19 There are -- have no -- excuse me. There  
 20 have not been any constituents identified  
 21 in a usable groundwater or underground  
 22 drinking -- source of drinking water let  
 23 alone at quantities that would render them  
 24 unusable for their intended purposes.  
 25 BY MR. HUDDALL:

28

1 not -- it's not soil related.  
 2 MR. HUDDALL:  
 3 I know, but -- yeah. Okay. Yeah.  
 4 You can answer.  
 5 THE WITNESS:  
 6 From what I can recall -- and we can  
 7 certainly look into it deeper, but there  
 8 were concentrations that -- in the soil  
 9 that exceeded the 29-B Chapter 3 pit  
 10 closure standard within the water-bearing  
 11 zone that we feel is associated with the  
 12 groundwater plume from the Iberville  
 13 Parish School Board property as opposed to  
 14 soil concentrations on the Levert property  
 15 itself.  
 16 MR. HUDDALL:  
 17 I'm going to mark as Exhibit 5 your  
 18 appendix C, which are the tables for your  
 19 report.  
 20 (Exhibit 5 marked and tendered.)  
 21 THE WITNESS:  
 22 Thank you kindly for putting these  
 23 on an 11 by 17.  
 24 MR. HUDDALL:  
 25 You're welcome.

29

1 MR. HUDDLELL:  
 2 I'll also mark as Exhibit 6 the  
 3 pictures.  
 4 (Exhibit 6 marked and tendered.)  
 5 THE WITNESS:  
 6 Thank you.  
 7 BY MR. HUDDLELL:  
 8 Q. So can we identify using the figures  
 9 and tables whether there are any exceedances of  
 10 29-B in the soil in the limited admission Area 1?  
 11 MR. TROUTMAN:  
 12 Same objection.  
 13 THE WITNESS:  
 14 Same answer. The exceedance of the  
 15 technical Chapter 3 29-B standard of EC at  
 16 depth at LT-1 is a technical exceedance of  
 17 the soil standard, but the EC standard is  
 18 a result of the groundwater plume  
 19 identified from the Iberville property and  
 20 thus it's a groundwater exceedance in my  
 21 opinion.  
 22 BY MR. HUDDLELL:  
 23 Q. So LT-1 is on the first page of your  
 24 soil?  
 25 A. Yes. Table 1, page 1 of 1; and that

31

1 A. It appears to be so, yes, and it  
 2 does meet the elevated wetland and submerged  
 3 standard under 29-B; but yes, I would think it  
 4 would be a result of the water-bearing zone and  
 5 fluctuations within it.  
 6 Q. Okay. The elevated wetland standard  
 7 is -- is eight for EC; is that right?  
 8 A. That's correct, yes.  
 9 Q. Okay. How -- is that the only  
 10 potential exceedance of the 29-B standard in  
 11 limited admission Area 1?  
 12 A. Yes.  
 13 Q. Okay. How about limited admission  
 14 Area 2, do we have soil exceedances of 29-B  
 15 there?  
 16 A. Yes, we do.  
 17 Q. Where -- at what locations?  
 18 A. Well, I'm referring to Table 2, page  
 19 1 of 1, and there were elevated constituents of  
 20 metals and/or hydrocarbons identified at select  
 21 borings including HA-1, SB-17, 18, 19, and 20,  
 22 which have been both horizontally and vertically  
 23 delineated. And the concentrations I'm referring  
 24 to as exceeding are -- it's Chapter 3 pit closure  
 25 standards only.

30

1 would be the last result, LT-1, 12 to 14 feet  
 2 within the water-bearing zone only.  
 3 Q. Okay. So even though that's a -- a  
 4 soil parameter, it's in the saturated zone; is  
 5 that -- is that fair?  
 6 A. That's correct, yes.  
 7 Q. Okay. So more clearly, you're  
 8 measuring -- you would think -- you would  
 9 consider that measurement of groundwater rather  
 10 than soil at LT-1 at 12 to 14 feet?  
 11 A. Yes. You're measuring the saturated  
 12 zone; and, as a result, it's manifesting it in  
 13 the soil sample from EC and particularly that you  
 14 are not getting any elevated EC concentrations  
 15 above that zone, right, so it -- it's evident  
 16 that it's within the water-bearing zone emanating  
 17 from the Iberville Parish School Board property.  
 18 Q. Okay. So the -- the next interval  
 19 that was measured was I guess 6 to 8 feet; is  
 20 that right?  
 21 A. That's correct.  
 22 Q. And -- and while that's slightly  
 23 elevated, that would -- that would be most likely  
 24 a result of a bottom up phenomenon rather than  
 25 top down?

32

1 Q. So, for example, at SB-17, at 0 to 2  
 2 feet, HET found oil and grease at 11.2 percent,  
 3 correct?  
 4 A. That's correct. And the split  
 5 sample result from ICON found 2.2 percent from  
 6 the same sample.  
 7 Q. Okay. And the regulatory limit is?  
 8 A. One percent.  
 9 Q. One percent. Okay. All right. So  
 10 -- so at SB-17 at 0 to 2 feet, we have a 29-B  
 11 regulatory violation with respect to oil and  
 12 grease?  
 13 MR. TROUTMAN:  
 14 Object to the form.  
 15 THE WITNESS:  
 16 We have an exceedance of the  
 17 Chapter 3 standard of oil and grease, yes.  
 18 That has been further evaluated under  
 19 RECAP and subject to the proposed pit  
 20 closure remediation that we offer in our  
 21 report.  
 22 BY MR. HUDDLELL:  
 23 Q. Okay. And then at -- at SB-18, 0 to  
 24 2 feet, you -- you, HET, found oil and grease at  
 25 2.05 percent; is that correct?

33

1 A. That's correct, yes.  
 2 Q. And that is in violation of the 29-B  
 3 standard for oil and grease; is that right?  
 4 MR. TROUTMAN:  
 5 Object to the form.  
 6 THE WITNESS:  
 7 Same answer I gave a moment ago. It  
 8 exceeds the Chapter 3 standard of  
 9 1 percent that was further evaluated under  
 10 RECAP.  
 11 BY MR. HUDDLELL:  
 12 Q. Okay. And at SB-20, we've got an  
 13 oil and grease of 1.97 correct?  
 14 A. That's correct.  
 15 Q. And that's in exceedance of the  
 16 regulatory limit of oil and grease, correct?  
 17 A. Under Chapter 3 pit closure  
 18 standards only, yes.  
 19 Q. Okay. At SB-20, we have  
 20 2.92 percent, correct?  
 21 A. That's correct.  
 22 Q. And that's in excess of the  
 23 regulatory limit of 1 percent for oil and grease,  
 24 correct?  
 25 A. Yeah. Same answer, subject to the

35

1 Q. At Area 2, how much is that soil pit  
 2 closure going to cost?  
 3 A. I don't have that breakdown in front  
 4 of me. We have it I think totaled in our report.  
 5 I don't know that I have it broken down by area,  
 6 but we can certainly get that to you.  
 7 Q. Do you have it broken down by area  
 8 in -- in some appendix or something?  
 9 A. I'm not aware that the breakdown of  
 10 costs within one of the appendices actually  
 11 separates it by area or not.  
 12 We summarized the total pit closure  
 13 of all three pits within limited admission Areas  
 14 2 and 3. On page 49 of our report, appendix P,  
 15 contains the cost estimates, but, again, I'm not  
 16 sure -- I'd have to review it to see if it's  
 17 broken out by each individual pit or the soil  
 18 remediation as part of the pit closure activities  
 19 for limited admission Areas 2 and 3.  
 20 Q. Okay. All right. Limited admission  
 21 Area 3, do we have exceedances of 29-B standards  
 22 at Area 3?  
 23 A. We do, yes, at both pits, one of  
 24 which HET assessed and one of which both HET and  
 25 ICON assessed.

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1 Chapter 3 pit closure standard, subject to  
 2 further evaluation and remediation.  
 3 Q. And I guess going back to HA-1,  
 4 HET's split sample had an oil and grease  
 5 concentration of 8.4 percent, correct?  
 6 A. Yes.  
 7 Q. And that's in excess of the 29-B pit  
 8 closure, 29-B --  
 9 A. Yes, in exceedance of --  
 10 Q. -- pit closure requirement?  
 11 A. I'm sorry. I thought you were done.  
 12 I didn't mean to interrupt you. Yes, it's in  
 13 exceedance of the Chapter 3 standards, yes.  
 14 Q. Okay.  
 15 A. Same scenario as the others.  
 16 Q. Does HET propose to clean that up?  
 17 MR. TROUTMAN:  
 18 Object to the form.  
 19 THE WITNESS:  
 20 We propose to conduct pit closure  
 21 with the excavation and off-site disposal  
 22 of the 0 to 2 interval as part of the  
 23 overall physical pit closure activities,  
 24 yes.  
 25 BY MR. HUDDLELL:

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1 Q. Okay. And what sample locations  
 2 would we look at for Area 3 exceedances?  
 3 A. So looking at Table 4, the data here  
 4 is separated into what we refer to as the eastern  
 5 and western pits. You can see that there's a  
 6 break at the very top. The first line after the  
 7 regulatory standards says eastern pit, and then  
 8 if you turn to page 2, in the top quarter of the  
 9 page, there's another break, western pit, so they  
 10 are separated by each pit for ease of reference.  
 11 So from a 29-B perspective, in the  
 12 eastern pit, you would have exceedances of the  
 13 Chapter 3 standards in soil borings 1 through 5  
 14 installed by HET.  
 15 Q. And does that include 5 and 5R, the  
 16 -- well, why is there like a 5 and a 5R?  
 17 A. We returned to the site in September  
 18 of this year to conduct additional analysis to  
 19 obtain horizontal and vertical delineation of the  
 20 Chapter 3 pit closure standards, and 5R was  
 21 installed to vertically delineate and then maybe  
 22 -- I'll try to remember the best -- and soil  
 23 borings SB-25 and SB-26 installed in September  
 24 were installed to complete the horizontal  
 25 delineation, and so that's why you have an SB-5R.

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1 Q. Which -- which 29-B parameters are  
 2 being exceeded at the SB-1 through 5 locations?  
 3 A. Primarily barium. In consideration  
 4 of the statewide background level for arsenic,  
 5 arsenic does not exceed, but technically arsenic  
 6 would exceed the Chapter 3 pit closure standards;  
 7 and that's why the department allows for  
 8 additional evaluation outside of Chapter 3, to  
 9 put those type of concentrations in context or  
 10 further evaluation under RECAP or otherwise.  
 11 Q. Okay. Any other exceedances at the  
 12 eastern pit?  
 13 A. Yes. There was an exceedance in  
 14 soil boring SB-8 in the ICON split sample data,  
 15 but we confirmed through third party analysis and  
 16 in addition to our split sample result that the  
 17 true total barium concentrations in that sample  
 18 were, in fact, below 29-B standards; and so that  
 19 would be SB-8, 0 to 2. Given -- given the  
 20 discrepancy between the split sample results in  
 21 which ICON had an exceedance of the 29-B standard  
 22 and our initial evaluation did not show that  
 23 exceedance, we had a third party lab analyze the  
 24 sample retains to confirm that there was, in  
 25 fact, not an exceedance at SB-8.

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1 A. We do. This is the pit that ICON  
 2 did assess in limited admission Area 3 in which  
 3 elevated concentrations of oil and grease and  
 4 true total barium were identified in soil boring  
 5 HA-2 installed by ICON as well as, at least in  
 6 some of the split sample results, potentially  
 7 concentrations of cadmium, lead and zinc above  
 8 29-B standards. Again, those are further  
 9 evaluated under RECAP that we can discuss.  
 10 That sample result was reproduced  
 11 and further evaluated and delineated within our  
 12 sample results from soil borings 10, 11, 12 and  
 13 13, of which exceedances were reported in 10, 11  
 14 and 12 within the confines of the pit itself.  
 15 And those exceedances, again, I'm --  
 16 I'm -- in -- in referring to the Chapter 3, 29-B  
 17 standards, those concentrations have been both  
 18 further assessed from ICON and horizontally and  
 19 vertically delineated.  
 20 Q. The cadmium exceeds the RECAP  
 21 screening standard; is that right?  
 22 A. That's correct. It is below --  
 23 thank you for drawing that to my attention. It  
 24 exceeds the RECAP screening standard, but it is  
 25 below the Management Option 1 standard, which is

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1 Q. Well, did you figure out what the  
 2 discrepancy was? Did the lab make a mistake or  
 3 --  
 4 A. It -- it appears that the sample  
 5 results from -- well, actually the data  
 6 demonstrates that the sample results from Element  
 7 could not be confirmed by two separate  
 8 laboratories; and as far as why Element reported  
 9 and two other labs did not, I don't know why, but  
 10 in accordance with department policy, I think we  
 11 have addressed the fact that not only was it not  
 12 exceeding at that location, but we did install a  
 13 boring to horizontally delineate in the fact --  
 14 in the event that it was determined that it still  
 15 had an exceedance at that location. But I was  
 16 not able to identify why Element reported that  
 17 number as far as lab error or otherwise. I -- I  
 18 haven't made that conclusion yet.  
 19 Q. Okay. But -- but for SB-1 through  
 20 SB-5, we have exceedances of the 29-B standard  
 21 for true total barium, right?  
 22 A. That's correct.  
 23 Q. Okay. Okay. How about the western  
 24 pit, we have exceedances of any regulatory  
 25 standards at the western pit?

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1 more appropriate to use, and it is below the  
 2 29-B.  
 3 Same with lead, which was reported  
 4 above the screening standard in HA-1 only.  
 5 Actually, but in HA-1 it was reported above RECAP  
 6 screening but below the lead -- the 29-B standard  
 7 of 500.  
 8 Q. Do you think the oilfield operations  
 9 would have been the source of the cadmium that  
 10 was detected?  
 11 A. Yes.  
 12 MR. TROUTMAN:  
 13 Object to the form.  
 14 BY MR. HUDDLELL:  
 15 Q. Okay. And what -- what oilfield  
 16 process would have resulted in the cadmium  
 17 release that we are -- we are detecting?  
 18 A. I'm not aware --  
 19 MR. TROUTMAN:  
 20 Object to the form.  
 21 THE WITNESS:  
 22 I'm sorry. I didn't mean to  
 23 interrupt. I'm not aware of the specific  
 24 mechanism.  
 25 BY MR. HUDDLELL:

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1 Q. Okay. But you think it was more  
 2 likely than not from oil and gas operations?  
 3 MR. TROUTMAN:  
 4 Object to the form.  
 5 THE WITNESS:  
 6 That would be my understanding, yes.  
 7 BY MR. HUDDLELL:  
 8 Q. Okay. So for the western pit, we  
 9 have exceedances of oil and grease standards --  
 10 oil and grease standards at SB-10, SB-11 and  
 11 HA-2; is that correct?  
 12 A. That's correct, yes.  
 13 Q. Okay.  
 14 A. And, as we mentioned several times,  
 15 that was further assessed under RECAP, but those  
 16 are a reported exceedance of the Chapter 3  
 17 standards only.  
 18 Q. Okay. And at -- at several of these  
 19 locations in the western pit, we have also got  
 20 exceedances of the true total barium standard for  
 21 29-B, correct?  
 22 A. Yes, for the Chapter 3 standard that  
 23 was further evaluated under RECAP for X-ray  
 24 defraction determined as barium sulfate and below  
 25 the soil and groundwater pathway but above the

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1 A. That's correct. That the reported  
 2 standards would meet an MO-1 human health risk  
 3 assessment standards.  
 4 Q. And you've further had an analysis  
 5 of the ecological risk; is that right?  
 6 A. Done by Dr. Connelly, yes.  
 7 Q. Okay. Did you have any involvement  
 8 in that?  
 9 A. Other than working with Helen to  
 10 provide information and provide lab, etc.,  
 11 whatever information she needed to do it. I did  
 12 not perform calculations or otherwise. That  
 13 assessment would strictly be performed and the  
 14 result of Dr. Connelly's conclusions.  
 15 Q. And your understanding is that she  
 16 didn't find any ecological risk, correct?  
 17 A. That's correct.  
 18 Q. So why is it that HET proposes to  
 19 remediate the soil in these three pit locations?  
 20 MR. TROUTMAN:  
 21 Object to the form.  
 22 THE WITNESS:  
 23 Well, in accordance with department  
 24 policy, we would be required to physically  
 25 close the pits; and that's because, if the

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1 Chapter 3 standard, yes.  
 2 Q. Are -- are you the one who did the  
 3 RECAP analysis?  
 4 A. Yes, the human health risk  
 5 assessment, yes.  
 6 Q. Oh. So how did you -- how did you  
 7 find the eastern pit? How did HET find it?  
 8 A. We observed the pit during the  
 9 initial investigation by ICON; and, as we were  
 10 asked to conduct our independent assessment of  
 11 the property, we determined the need to sample  
 12 that pit to determine its regulatory status.  
 13 Q. You observed it while you were out  
 14 there with ICON --  
 15 A. Yes.  
 16 Q. -- is that what you're saying?  
 17 Okay. How could you tell that it was a pit?  
 18 A. All three of the pits, subject to  
 19 the limited admission Areas 2 and 3, have  
 20 existing berms and are somewhat evident in the  
 21 field that they are oilfield related pits in  
 22 nature.  
 23 Q. You -- you did a RECAP analysis and  
 24 determined that at all three of the pits the --  
 25 there were no human health risks, correct?

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1 pits are open, you would have to obtain a  
 2 passive closure requirement to leave them  
 3 in place. And that's a mechanism that the  
 4 department uses in certain instances;  
 5 however, that passive closure requirement  
 6 or the passive closure option, excuse me,  
 7 dictates that you must meet Chapter 3 pit  
 8 closure standards, that you can't have a  
 9 concentration in exceedance of Chapter 3  
 10 regardless if it meets other provisions of  
 11 Chapter 3 or RECAP or otherwise, that the  
 12 department requires at least physical  
 13 closure in that sense. And so at the very  
 14 least, physical closure would be required.  
 15 The mechanism for soil  
 16 remediation -- because we could simply go  
 17 out there and physically close the pits,  
 18 pump out the water, close the pits and be  
 19 done. The remediation was based on  
 20 expediency in which we have equipment on  
 21 site. We need to perform the pit closures  
 22 instead of waiting for lab results from  
 23 side wall and bay samples collected during  
 24 the course of investigation; and having  
 25 that time lag, we determined that it was

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1 more expedient, more cost effective just  
 2 to go ahead and remove the pit contents as  
 3 part of the physical pit closure.  
 4 As you can imagine, given the remote  
 5 nature of the site and otherwise, having  
 6 equipment out there for an extended period  
 7 of time waiting on the lab can get  
 8 expensive, and so it was more cost  
 9 effective to simply remove the pit  
 10 contents and close it instead of doing a  
 11 mixing and blending and waiting on  
 12 confirmatory results.  
 13 BY MR. HUDDALL:  
 14 Q. You in the past -- or let me  
 15 rephrase that.  
 16 You have requested passive closure  
 17 before in your line of work, right, for pits?  
 18 A. We have, yes.  
 19 Q. Okay. And I've seen that, for  
 20 example, in instances where the only exceedances  
 21 are -- are barium, right?  
 22 A. It may have been in the past. More  
 23 recent department policy is that you still would  
 24 need to meet those Chapter 3 pit closure  
 25 standards.

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1 Object to the form.  
 2 THE WITNESS:  
 3 From our evaluation for soil, a  
 4 hypothetical plan is not necessary because  
 5 the pit closure that we propose is 29-B  
 6 compliant for soil.  
 7 MR. HUDDALL:  
 8 Right.  
 9 THE WITNESS:  
 10 For the same reason we talked about  
 11 for cost benefit analysis for pit closure,  
 12 it was more cost effective to excavate and  
 13 close and dispose of the pit contents  
 14 offsite than waiting for the -- the lab  
 15 results and whether -- given equipment  
 16 costs. So short answer, we felt fine that  
 17 our proposed pit closure is 29-B compliant  
 18 for soil.  
 19 It's our understanding and our  
 20 opinion that monitored natural attenuation  
 21 is also a 29-B compliant groundwater plan  
 22 and a monitored -- the site meets the  
 23 requirements for or the evaluation of that  
 24 would result in a plan that would be  
 25 approved for monitored natural

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1 Q. Oh, okay. I didn't know that.  
 2 A. I don't know if that -- when or if  
 3 that threshold -- I'm not aware of closing out a  
 4 particular pit with elevated true total barium  
 5 that I can recall off the top of my head, but  
 6 within more recent past, the department has  
 7 required that you obtain concentrations in line  
 8 with 29-B Chapter 3 pit closure in order to  
 9 perform or to obtain a passive pit closure.  
 10 Q. Okay. In the other cases that I've  
 11 had with limited admissions, ERM has submitted a  
 12 hypothetical 29-B plan. Have you seen those --  
 13 that before?  
 14 A. Yes. And we have done so as part of  
 15 those cases where it wasn't a limited admission,  
 16 but we've had hearings in front of the agency as  
 17 well.  
 18 Q. Okay. And, in those cases, for  
 19 example, in Hero, Chevron's hypothetical 29-B  
 20 plan involved pumping and treating the  
 21 groundwater; do you recall that?  
 22 A. Yes.  
 23 Q. Why do you not have a hypothetical  
 24 29-B plan for this case?  
 25 MR. TROUTMAN:

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1 attenuation.  
 2 In the event that the department  
 3 does want to see a pump and treat plan as  
 4 an option for monitored natural  
 5 attenuation, then we refer to the ICON  
 6 pump and treat plan; but we feel that  
 7 monitored natural attenuation under 29-B  
 8 is -- is compliant with those regulations.  
 9 BY MR. HUDDALL:  
 10 Q. Is it your understanding that, as  
 11 ERM has put in their hypothetical plans, that  
 12 outside of Act 312 that background would be the  
 13 groundwater cleanup criteria --  
 14 MR. TROUTMAN:  
 15 Object to the form.  
 16 BY MR. HUDDALL:  
 17 Q. -- not 29-B?  
 18 A. Not necessarily, no. 29-B was a --  
 19 evolved for pit closure, and they didn't have a  
 20 groundwater standard for within those regulations  
 21 and so they reference background concentrations  
 22 as -- as something that would be, you know, a  
 23 comparative standard per se.  
 24 Since promulgation of those  
 25 regulations, they now use the RECAP screening

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1 and/or EPA has got thresholds to evaluate  
 2 groundwater impact; and certainly in all  
 3 instances the department has considered risk  
 4 assessment and other standards as an exception to  
 5 the 29-B pit closure rule for evaluation,  
 6 implementation of -- of alternate standards on  
 7 numerous cases.  
 8 MR. HUDDALL:  
 9 Okay.  
 10 THE WITNESS:  
 11 And so I guess for those standards,  
 12 background is a comparative standard for  
 13 lack of groundwater standards within the  
 14 1986 regulations.  
 15 BY MR. HUDDALL:  
 16 Q. Okay. So what -- what standard --  
 17 what remedial standard are you applying to the  
 18 groundwater at the -- at the site?  
 19 A. Certainly as Dr. Cooper can further  
 20 testify to, we feel that the monitored natural  
 21 attenuation will achieve a comparative drinking  
 22 water standard or whatnot potentially over time;  
 23 however, for our evaluation within -- within the  
 24 context of our report outside the bounds of  
 25 monitored natural attenuation, we've also

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1 concentration that would meet over a large -- a  
 2 long period of time would meet drinking water  
 3 standards or otherwise. In support of the  
 4 monitored natural attenuation, we also calculated  
 5 the RECAP standards. And showing that there is  
 6 no threat to human health and the environment and  
 7 evaluating under RECAP for the monitored natural  
 8 attenuation requirements, that those -- even  
 9 though that we meet the RECAP standards, over  
 10 time through the monitored natural attenuation,  
 11 you would achieve the same goal as --  
 12 Q. As pump and treat?  
 13 A. As pump and treat. Thank you.  
 14 Q. Okay. Let's set aside the remedial  
 15 approach. And I know that you're using monitored  
 16 natural attenuation, but are you saying that the  
 17 two -- two standards that are you are looking at  
 18 are the drinking water standards and then the  
 19 RECAP standards for groundwater; is that fair?  
 20 MR. TROUTMAN:  
 21 Object to the form.  
 22 THE WITNESS:  
 23 That is a -- the two standards that  
 24 we reference in our report, the second of  
 25 which, the latter of which is in support

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1 conducted a RECAP standard demonstrating that  
 2 these soils meet the groundwater standards  
 3 calculated under RECAP.  
 4 Q. You said the soils?  
 5 A. I'm sorry. Groundwater standards.  
 6 I'm sorry.  
 7 Q. Okay. So well, what -- what  
 8 groundwater standard did you apply to these three  
 9 limited admission areas?  
 10 A. We feel that over time through  
 11 monitored natural attenuation that these  
 12 concentrations could likely be meeting a  
 13 regulatory screening standard or otherwise.  
 14 Dr. Cooper, of course, can -- can  
 15 opine more on that. And in support of that  
 16 monitored natural attenuation plan, we also  
 17 consulted the RECAP standard, so we're applying  
 18 both for evaluation by the department.  
 19 Q. Okay. And you are applying both you  
 20 said. What -- what are the two standards that  
 21 you are applying to the groundwater in the three  
 22 limited admission areas?  
 23 A. Well, under our plan, we -- the data  
 24 demonstrates that over time monitored natural  
 25 attenuation would continue to result in a

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1 of the monitored natural attenuation.  
 2 BY MR. HUDDALL:  
 3 Q. The RECAP standards are in support  
 4 of the monitored natural attenuation?  
 5 A. Yes. We calculated them to  
 6 demonstrate that there was no threat to human  
 7 health and the environment; and that there was no  
 8 need for active remediation; and that the  
 9 timeframe in which monitored natural attenuation  
 10 could be performed would not result in any  
 11 adverse impact to the site; that, again, there's  
 12 no threat to human health and the environment by  
 13 the groundwater constituents; and, therefore,  
 14 active remediation is not required. And I say  
 15 active. Pump and treat is not required.  
 16 Q. Can I call it MNA for short?  
 17 A. Yes.  
 18 Q. Is MNA an active remediation  
 19 technology?  
 20 A. Yes. It is considered by the  
 21 regulatory agencies to be an active remediation.  
 22 Q. And if I'm -- if I'm going too much  
 23 into Dr. Cooper's area, let me know, but how --  
 24 how long are you planning to perform MNA?  
 25 A. Our report has a groundwater

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1 monitoring period of one year, which is more  
 2 tailored, in my opinion, to confirming that the  
 3 groundwater conditions remain stable after pit  
 4 closure activities are performed. We have  
 5 assessed this area with Iberville Parish from I  
 6 think 2013 on. We could look at the exact dates,  
 7 but we've been out here for a bit. As far as the  
 8 timeframe and -- and otherwise, that would be a  
 9 question for Dr. Cooper.  
 10 Q. So the one year that you are talking  
 11 about is not MNA per se, it's -- it's really to  
 12 see if your post pit closure remediation has had  
 13 an effect on the groundwater concentrations --  
 14 MR. TROUTMAN:  
 15 Object to the form.  
 16 BY MR. HUDDLELL:  
 17 Q. -- is that right?  
 18 A. In general, yes. Because it's a  
 19 department policy to conduct a one-year post  
 20 closure monitoring period; and that's more of my  
 21 understanding. Whether or not that benefits  
 22 Dr. Cooper's analysis, please visit him about;  
 23 but in my opinion, it's more for those purposes.  
 24 Q. For the pit closure purposes?  
 25 A. Yes. And then again, I don't expect

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1 groundwater in limited admission Areas 1, 2 and  
 2 3.  
 3 Can you tell us which sample  
 4 locations show any exceedances of any groundwater  
 5 standards in limited admission Area 1?  
 6 MR. TROUTMAN:  
 7 Object to the form.  
 8 THE WITNESS:  
 9 Based on the results that we have  
 10 reviewed, groundwater standards from --  
 11 are collected from ICON's temporary  
 12 monitor well LT-1. Reported elevated  
 13 constituents of chloride related  
 14 parameters above comparative drinking  
 15 water standards which have been  
 16 demonstrated to meet RECAP standards as  
 17 calculated in our report.  
 18 BY MR. HUDDLELL:  
 19 Q. That's Table 8?  
 20 A. Table 7.  
 21 Q. Oh. Seven.  
 22 A. And 8, but mainly Table 7.  
 23 Q. Okay. LT-1, HET found a chloride  
 24 concentration of 12,400 milligrams per liter,  
 25 correct?

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1 anything because the groundwater concentrations  
 2 in the limited admission Areas 2 and 3 are  
 3 slightly elevated for chloride parameters and the  
 4 pit closure activities are being performed for  
 5 metals and hydrocarbons. We don't have any  
 6 exceedances of EC in the soil in limited  
 7 admission Areas 2 and 3, and so I don't expect  
 8 any adverse conditions to -- or any changes in  
 9 the groundwater zone. That's more of a  
 10 department policy; and, again, should that add  
 11 additional benefit to Dr. Cooper, you'd have to  
 12 visit on him that, on the MNA.  
 13 Q. All right. So let's look at  
 14 groundwater.  
 15 MR. HUDDLELL:  
 16 Actually, you want to take a  
 17 ten-minute break?  
 18 THE VIDEOGRAPHER:  
 19 We are off the record. 10:17 a.m.  
 20 (A short recess was taken.)  
 21 THE VIDEOGRAPHER:  
 22 We are back on the record.  
 23 10:34 a.m.  
 24 BY MR. HUDDLELL:  
 25 Q. I'd like to talk about the

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1 A. That's correct, yes.  
 2 Q. What is your opinion as to the  
 3 source of the chloride concentrations being found  
 4 at LT-1?  
 5 A. It appears to be associated with an  
 6 emanated groundwater plume from the Iberville  
 7 Parish School Board property.  
 8 Q. And why do you believe that it's  
 9 from the school board property?  
 10 A. As we discussed a moment ago, there  
 11 are no surface chloride concentrations above the  
 12 water-bearing zone, above regulatory standard and  
 13 the exceedances in both soil and groundwater from  
 14 at least the comparative screening standards  
 15 either from 29-B or otherwise -- excuse me --  
 16 were only identified within the saturated zone,  
 17 and so there's no surface soil source that's been  
 18 identified in the vicinity of LT-1 to serve as a  
 19 source on the Levert property. And given our  
 20 knowledge and history with the Iberville Parish  
 21 School Board assessment, it seems evident based  
 22 on the data that it's associated with the  
 23 groundwater plume identified, monitored and  
 24 evaluated and closed under the agency on the  
 25 Iberville Parish site. That's Iberville Parish



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1 School Board property. Excuse me.  
 2 Q. When did you close -- well, you were  
 3 responsible for closing the pit on the school  
 4 board property; is that right?  
 5 A. Yes. We conducted pit closures in  
 6 various areas of investigation, including the  
 7 central facility or is what we refer to as the  
 8 central facility associated with the Areas 1 and  
 9 2 on the Iberville Parish School Board property,  
 10 which that central facility straddled the  
 11 property boundary, but the pits themselves appear  
 12 to be the source which were confined to the  
 13 Iberville Parish School Board property.  
 14 Q. Can we look at Figure 6 from your  
 15 report? All right. Do you have Figure 6 in  
 16 front of you?  
 17 A. Yes.  
 18 Q. I'm going to hand you this red pen  
 19 (tendered.) And looking at the -- the 1987  
 20 aerial that you have depicted there, can you  
 21 circle what you believe is the source of the  
 22 contamination emanating onto the Levert property  
 23 in the groundwater?  
 24 MR. TROUTMAN:  
 25 Object to the form.

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1 A. Yeah. It's based on the data  
 2 obtained and evaluated through the assessment of  
 3 the school board property and the concentrations  
 4 identified in the soil on the Levert property  
 5 that there are no elevated constituents above the  
 6 saturated zone in the vicinity of LT-1, that  
 7 there were no other constituents identified above  
 8 standards in the -- in this portion of the site  
 9 on Levert other than within the saturated zone.  
 10 So there's no soil source that's been identified  
 11 that would result in these constituents on Levert  
 12 property.  
 13 Q. We also have elevated levels of TDS  
 14 at LT-1; is that right?  
 15 A. That's correct. And that's one of  
 16 the parameters I would associate it with  
 17 salinity.  
 18 Q. And we also have elevated levels of  
 19 barium at LT-1, correct?  
 20 A. That's correct, yes.  
 21 Q. And -- and so with respect to the  
 22 chlorides and the TDS, those exceed the EPA  
 23 secondary drinking water standards; is that  
 24 right?  
 25 A. That's correct. They exceed the

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1 THE WITNESS:  
 2 Certainly, again, we don't -- we  
 3 differ on whether there's contamination or  
 4 not.  
 5 MR. HUDDLELL:  
 6 I'm sorry.  
 7 THE WITNESS:  
 8 I don't find there's contamination,  
 9 but the extent of the chloride  
 10 constituents identified in the groundwater  
 11 that have been demonstrated to meet RECAP  
 12 standards appears to be the -- the former  
 13 pit complex just west of the Iberville --  
 14 I'm sorry -- the Levert property boundary.  
 15 BY MR. HUDDLELL:  
 16 Q. Okay. So you've circled in red a  
 17 former production pit; is that right?  
 18 A. That's correct.  
 19 Q. Okay. And I know you said it  
 20 before, but I just -- I just want to know all of  
 21 the -- all of the reasons why you believe that  
 22 that pit that you circled in red would be the  
 23 source of the groundwater underneath the limited  
 24 admission Area 1, the source of the elevated  
 25 constituents in the groundwater?

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1 esthetic standards that EPA has listed for TDS as  
 2 chlorides and TDS or salinity base don't pose a  
 3 threat to human health, so those comparative  
 4 standards, but they do have -- excuse me -- they  
 5 have been determined to meet the RECAP standards.  
 6 Q. Do you know how long those chlorides  
 7 have been there in the groundwater at LT-1?  
 8 A. No, I do not.  
 9 Q. Okay. Do you know approximately the  
 10 last time any potential source could have  
 11 contributed to the chlorides found at LT-1?  
 12 A. It would be the dates of operation,  
 13 in my opinion, of the pits that are located off  
 14 site.  
 15 Q. And with respect to the barium, the  
 16 barium at LT-1 exceeds the RECAP screening  
 17 standard for groundwater; is that right?  
 18 A. That's correct. It exceeds the  
 19 drinking water standard but meets the GW-3  
 20 standard under RECAP.  
 21 Q. There's also an exceedance of iron  
 22 at the -- at LT-1; is that correct?  
 23 A. That's correct. There are  
 24 exceedances of the EPA secondary drinking water  
 25 standard for iron and manganese, which is pretty



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1 prevalent through a lot of these zones and also  
 2 identified in the background borings or  
 3 monitoring wells, excuse me, installed by ICON  
 4 and so we -- we feel that the iron and manganese  
 5 and to some extent arsenic and otherwise, if it  
 6 were to be detected, are more a function of the  
 7 conditions of the aquifer itself.  
 8 Q. Do you think the oilfield  
 9 constituents contributed at all to the manganese  
 10 or iron that's being found at LT-1?  
 11 MR. TROUTMAN:  
 12 Object to the form.  
 13 THE WITNESS:  
 14 I can do some research on that, but  
 15 there are -- I don't recall the numbers  
 16 right off head -- hand -- excuse me -- as  
 17 compared to the background standards, but  
 18 the arsenic, iron and manganese are  
 19 prevalent in all of these zones, even in  
 20 drinking water aquifers, so I don't have  
 21 an opinion at this time on that.  
 22 BY MR. HUDDLELL:  
 23 Q. Now, we didn't find any arsenic  
 24 exceedances at LT-1, correct?  
 25 A. We did not, no.

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1 Q. In particular, the chlorides and TDS  
 2 exceed the US EPA secondary drinking water  
 3 standards; is that right?  
 4 A. That's correct. And comparison to  
 5 those is strictly just for that purpose. These  
 6 zones are nondrinking, do not yield enough either  
 7 under EPA or RECAP to serve as a drinking water  
 8 standard and so they are listed for comparative  
 9 purposes only as applying drinking water  
 10 standards is not appropriate for these zones.  
 11 Q. And it's your understanding that the  
 12 chlorides and TDS found at LT-2 in Area 2 are a  
 13 result of oilfield operations; is that correct?  
 14 A. Yes.  
 15 Q. Do you know if the soil at limited  
 16 admission Area 2 is a continuing source of any of  
 17 the salinity components that could have been  
 18 found in the groundwater?  
 19 A. The data demonstrate that it is not,  
 20 that soil would not serve as an ongoing source  
 21 for this, and the soil concentrations meet both  
 22 29-B standards and -- under Chapter 3 and have  
 23 been determined to residual concentrations or  
 24 whatnot to be below the threshold to result in  
 25 migration or -- or soil groundwater pathway;

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1 Q. Okay. We have also got radium,  
 2 combined radium nuclides of 6.28 picocuries per  
 3 liter; is that right?  
 4 A. That's correct. That standard above  
 5 the five combined EPA standard that Dr. Frazier  
 6 would opine, but I understand that Dr. Frazier  
 7 concluded that that was not associated with  
 8 oilfield NORM. It was also related to in general  
 9 the salinity concentrations.  
 10 Q. Okay. Table 9, what does Table 9  
 11 show us?  
 12 A. Table 9 would represent the  
 13 groundwater analytical results from ICON  
 14 temporary monitor well LT-2 found in limited  
 15 admission Area 2.  
 16 Q. And do we have elevated constituents  
 17 in the groundwater at limited admission Area 2 at  
 18 LT-2?  
 19 A. We do, and same conditions in  
 20 general as limited admission Area 1; although we  
 21 don't feel that it's related to limited admission  
 22 Area No. 1, but we have elevated concentrations  
 23 of salinity above EPA drinking water standards  
 24 that have been determined to meet the RECAP GW-3  
 25 standards.

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1 thus, they are not defined as an ongoing source  
 2 under RECAP.  
 3 Q. Have you ruled out the pit on the  
 4 school board property as being a source of the  
 5 chlorides then found at limited admission Area 2?  
 6 A. It may have been a historical  
 7 source, but the current constituents, one, don't  
 8 exceed the Chapter 3 standards and have been  
 9 determined to meet RECAP standards protective of  
 10 soil to groundwater, so they are not an ongoing  
 11 source.  
 12 Q. And I just want to make sure I asked  
 13 that right.  
 14 We know that the pit on the school  
 15 board property is a source of constituents we are  
 16 finding in the groundwater at limited admission  
 17 Area 1, correct?  
 18 A. That's correct.  
 19 Q. Is it potentially also a source of  
 20 the constituents we are -- constituents we are  
 21 finding at limited admission Area 2?  
 22 A. Which pit?  
 23 Q. Oh. Well, the pit that you circled?  
 24 A. No. The data demonstrates that the  
 25 pit associated with the offsite central facility

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1 area on the school board property does not appear  
 2 to be a source of the chloride concentrations  
 3 within limited admission Areas 2 or 3.  
 4 Q. Is that because we have some clean  
 5 samples in between the two or -- or what?  
 6 A. It's based on several aspects, and  
 7 we mention them in our report, the first being  
 8 the GEM data, in looking at the GEM survey, G-E-M  
 9 survey data that ICON performed. It clearly  
 10 depicts that those groundwater concentrations  
 11 identified in each limited admission area are not  
 12 a contiguous plume.  
 13 Second of all, the geology indicates  
 14 that you have varying thicknesses and somewhat  
 15 discontinuance silts within the saturated zone  
 16 that would limit the horizontal migration of  
 17 salts over a large distance; and those are the  
 18 two main components of that evaluation.  
 19 Q. We also have diesel range organics  
 20 that exceed the DEQ screening standard; is that  
 21 right?  
 22 A. We do. And ICON often has TPH  
 23 concentrations in every one of their samples,  
 24 including background normally. I don't recall if  
 25 they have it here, but further evaluation of the

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1 correct?  
 2 A. Yes.  
 3 Q. And that does exceed the RECAP  
 4 screening standard for groundwater; is that  
 5 right?  
 6 A. The screening standard, yes; but  
 7 there are levels in the background data that ICON  
 8 collected from eight and nine that are higher  
 9 than these concentrations, so I don't consider  
 10 that to be an exceedance associated with oilfield  
 11 operations. Again, arsenic, iron, manganese and  
 12 some other -- other constituents -- excuse me --  
 13 can be functions of the aquifer itself but not a  
 14 result of oilfield operations.  
 15 Q. We have exceedances of selenium --  
 16 selenium at LT-2; is that right?  
 17 A. That's correct.  
 18 Q. And do you think that that's a  
 19 result of oilfield operations?  
 20 A. The potential exists for that to be  
 21 associated with oilfield operations, but I  
 22 haven't made that definitive conclusion on  
 23 selenium. That concentration, of course,  
 24 slightly above the drinking water standard but  
 25 well below the RECAP standard.

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1 hydrocarbon fraction data in accordance with  
 2 RECAP into which RECAP even states that the  
 3 fraction data supersedes the TPH data  
 4 demonstrated that the hydrocarbon parameters are  
 5 below regulatory screening standards even.  
 6 And in looking at the background  
 7 data from ICON -- I'm sorry. That was one other.  
 8 I'm sorry. They got it at LT-5, but in general  
 9 ICON normally gets hits of TPH in many of their  
 10 samples that are not confirmed in the fraction  
 11 data as was the case here.  
 12 Q. Do -- do you believe that the TPH  
 13 DRO that was found at LT-2 would be a result of  
 14 the former pit or actually the current pit on the  
 15 limited admission Area 2 property?  
 16 A. I don't consider that to be an  
 17 exceedance and there's no evidence that it's from  
 18 the pit. TPH D and O particularly can host and  
 19 report a wide range of nontarget analytes; and  
 20 given the fact that the fraction data does show  
 21 all of that to be non-detect even to the RECAP  
 22 screening standards, I don't consider that to be  
 23 a hit especially since, as I said, the fraction  
 24 data supersedes the TPH data.  
 25 Q. We did find arsenic at LT-2,

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1 Q. Okay. But, definitively, we can't  
 2 say that the -- the salt parameters chloride and  
 3 TDS, that those elevated levels are a result of  
 4 oil and gas operations, correct?  
 5 A. It appears to be so, yes.  
 6 Q. And those are above what you would  
 7 expect to find in the natural background,  
 8 correct?  
 9 A. That's correct.  
 10 Q. And -- and that was also true with  
 11 respect to Area 1, that the chlorides and TDS  
 12 were above what you would expect for natural  
 13 background, correct?  
 14 A. That's correct.  
 15 Q. Okay. Let's head to limited  
 16 admission Area No. 3. Where did we see that?  
 17 A. That would start on Table 11 with  
 18 the salinity and metal based parameters on  
 19 Table 11 and the additional hydrocarbon related  
 20 constituents found on Table 12.  
 21 Q. All right. So at LT-3, we have got  
 22 chlorides of 1,410 and TDS of 3,260, correct?  
 23 A. Yes. In the ICON data, yes.  
 24 Q. All right. And -- and -- and HET  
 25 found chloride levels a little bit higher,

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1 2,600 milligrams per liter, correct?  
 2 A. That's correct.  
 3 Q. And TDS of 3,720 milligrams per  
 4 liter, correct?  
 5 A. That's correct.  
 6 Q. And you believe that those elevated  
 7 levels of chlorides and TDS would be a result of  
 8 oil and gas operations within limited admission  
 9 Area 3, correct?  
 10 A. Yes.  
 11 Q. And those are above what you would  
 12 expect for natural background, correct?  
 13 A. That's correct. But do meet the  
 14 RECAP standards, yes.  
 15 Q. And, here again, ICON found elevated  
 16 levels of diesel range organics and oil range  
 17 organics in the groundwater LT-3 correct?  
 18 A. That's correct, that weren't  
 19 confirmed in the fraction analysis, so I don't  
 20 feel that those are true to the presence of  
 21 hydrocarbons there.  
 22 Q. At both Areas 2 and 3, we do have  
 23 elevated oil and grease, correct, in the soil?  
 24 A. We do in the surface soils that have  
 25 been vertically delineated in both 29-B and RECAP

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1 respect to groundwater is -- is to have it meet  
 2 the drinking water standards? I'm still not  
 3 entirely sure what -- what -- what is your  
 4 target? What is it that you want to -- what  
 5 remedial standard do you want to meet with  
 6 respect to the groundwater in these three limited  
 7 admission areas?  
 8 MR. TROUTMAN:  
 9 Object to the form.  
 10 THE WITNESS:  
 11 Our evaluation has demonstrated that  
 12 the RECAP standards are the most feasible  
 13 plan that the standards are -- demonstrate  
 14 that there's no threat to human health and  
 15 the environment. This -- we call these  
 16 groundwater samples because it is within a  
 17 saturated zone, but this zone is not  
 18 capable of yielding enough water under  
 19 EPA, RECAP, any definition of a USDW,  
 20 under 29-B.  
 21 These zones are discontinuous and  
 22 otherwise, and so we feel that the RECAP  
 23 standards are the most feasible and -- and  
 24 applicable standard for the site. Those  
 25 standards themselves, though, demonstrate

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1 parameters.  
 2 Q. And we have no exceedances of the  
 3 arsenic screening standard, correct?  
 4 A. That's correct, at LT-3.  
 5 Q. We have slightly elevated selenium  
 6 at LT-3, correct?  
 7 A. That's correct.  
 8 Q. And I think you said that that could  
 9 be from oilfield operations, but you haven't made  
 10 that determination, correct?  
 11 A. That's correct. Especially since  
 12 the split sample results in both the total and  
 13 the dissolved analyses did not also confirm the  
 14 presence of selenium and we have seen in the past  
 15 ICON data to report selenium concentrations that  
 16 have not been confirmed in split sample analyses.  
 17 So the fact that it's not present in either the  
 18 total or dissolved sample from us draws question  
 19 as to whether it's a constituent of concern.  
 20 Regardless, though, we evaluated that under  
 21 RECAP.  
 22 And that same scenario at LT-2, now  
 23 that I'm looking at it. Selenium was not  
 24 confirmed in the HET data, so similar situation.  
 25 Q. Okay. And so your -- your goal with

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1 that no active remediation as far as a  
 2 pump and treat is necessary; and as a  
 3 further evaluation of those groundwater  
 4 concentrations that meet RECAP, we've  
 5 determined that it would support a  
 6 long-term MNA.  
 7 So in my evaluation of the site, I  
 8 would consider the RECAP standards to be  
 9 the primary role, but as a result of the  
 10 MNA that we have evaluated and further  
 11 evaluated by Dr. Cooper, those standards  
 12 would naturally attenuate over time.  
 13 BY MR. HUDDLELL:  
 14 Q. And you think they would attenuate  
 15 all the way to -- to meeting the drinking water  
 16 standards, for example, for chlorides of  
 17 250 milligrams per liter?  
 18 MR. TROUTMAN:  
 19 Object to the form.  
 20 THE WITNESS:  
 21 I think over -- I think over time  
 22 they would certainly get as feasible to  
 23 that standard as possible, but, again,  
 24 that would be an evaluation you need to  
 25 visit with Dr. Cooper about.

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1 BY MR. HUDDLELL:  
 2 Q. All right. And so the -- the  
 3 specific RECAP standards then that you are  
 4 applying to these three limited admission areas  
 5 is a Groundwater 3 standard, right?  
 6 A. That's correct. The slug test data  
 7 that both ICON and HET have generated to date  
 8 clearly demonstrate that this would be a  
 9 nonusable zone under any definition: 29-B, EPA  
 10 or RECAP.  
 11 The data also demonstrates that  
 12 these shallow water-bearing zones are not in  
 13 communication or have the potential to discharge  
 14 to the adjacent surface water bodies. It's a --  
 15 a clear definition of GW-3.  
 16 Q. And so if I'm looking at the RECAP  
 17 look-up tables, would I be looking at GW-3 NDW or  
 18 -- or MO-1, what -- I just -- do you know the  
 19 full --  
 20 A. Yes.  
 21 Q. -- specific thing?  
 22 A. Yes. So this would be found under  
 23 RECAP Table 3 for the groundwater standards; and  
 24 the standard before applying a dilution and  
 25 attenuation factor would generally be the GW-3

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1 standard before applying your dilution and  
 2 attenuation factor that would either be found in  
 3 a background evaluation or EPA, which that would  
 4 be footnoted by three, in the No. 3.  
 5 And then for the metal parameters,  
 6 arsenic, barium, chromium, lead and selenium, as  
 7 a conservative standard, we use the drinking  
 8 water standards when, in fact, for several of  
 9 these constituents arsenic, primarily, the  
 10 background number identified in ICON temporary  
 11 monitor wells No. 8 and 9 exceed the drinking  
 12 water standard. And so, again, in a conservative  
 13 standpoint, we use the drinking water standard,  
 14 but you could use a background standard there  
 15 before applying the dilution and attenuation  
 16 factor.  
 17 The third column is the dilution and  
 18 attenuation factor. That's calculated under two  
 19 options under RECAP appendix H, the first, that  
 20 being the thickness of the water-bearing zone on  
 21 average being less than 5 feet; and the second is  
 22 the distance to the nearest surface water body  
 23 capable of receiving discharge from the shallow  
 24 water-bearing zone.  
 25 We have determined that the shallow

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1 nondrinking water as the surface water bodies are  
 2 not a source of drinking water in the vicinity of  
 3 the site, and then those standards are further  
 4 evaluated applying a dilution and attenuation  
 5 factor.  
 6 We also can use background as those  
 7 preliminary standards before applying a DAF, and  
 8 you can also use the EPA secondary drinking water  
 9 standards. So for most of the constituents,  
 10 other than chlorides and TDS, you would look at  
 11 Table 3 under RECAP to start the process for that  
 12 evaluation, but we also can -- have evaluated  
 13 background and the EPA standards in that.  
 14 Q. Do you set that forth somewhere in  
 15 your report?  
 16 A. Yes. The evaluation of the RECAP  
 17 standards is found summarized on text table 3 on  
 18 page 42 of our report.  
 19 Q. Can you walk us through this? So,  
 20 for example, chlorides, what -- what did you  
 21 determine for chlorides as the applicable RECAP  
 22 standards?  
 23 A. So the first column clearly  
 24 identifies the compound that is further assessed  
 25 under RECAP. The second is the comparative

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1 water-bearing zones do not have the capability of  
 2 doing so and, thus, the maximum dilution and  
 3 attenuation factor of 440 was applied.  
 4 Q. Can I stop you there?  
 5 A. Yes.  
 6 Q. Is it appropriate to use a DAF when  
 7 you are dealing with constituents that are  
 8 migrating across a property boundary?  
 9 MR. TROUTMAN:  
 10 Object to form.  
 11 THE WITNESS:  
 12 Yes. Because under a Groundwater 3,  
 13 the DAF is based on the nearest surface  
 14 water body. And to where under a GW-1 or  
 15 2, that DAF takes into consideration the  
 16 property boundaries, under a GW-3, it does  
 17 not.  
 18 And as part, we've evaluated and  
 19 closed with the agency the groundwater  
 20 plume on Iberville demonstrating the exact  
 21 conditions and standards that we apply  
 22 here.  
 23 BY MR. HUDDLELL:  
 24 Q. When did you apply for closure for  
 25 the school board property?

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1 A. The final petition was in a report  
 2 submitted fairly recently, the pit closure  
 3 reports. I can get a date for you. It's  
 4 referenced in our report. And the agency just  
 5 recently offered no objection to the report and  
 6 requested for us to plug and abandon our  
 7 monitoring wells.  
 8 We plugged those wells within the  
 9 last couple of weeks and submitted a closure  
 10 report again to the agency documenting the fact  
 11 that the monitoring wells have been plugged and  
 12 no further field work is necessary, and we are  
 13 waiting agency word on that final NFA letter;  
 14 but, in fact, the no objection letter to the  
 15 plugging of the monitoring wells serves as the no  
 16 further investigation status with the department.  
 17 Q. On the school board property, are  
 18 you using monitored natural attenuation with  
 19 respect to the groundwater?  
 20 A. Similar to here at Levert, we  
 21 evaluated this under RECAP and the department  
 22 determined that those standards were -- you know,  
 23 met the RECAP standards and didn't pose any  
 24 threat to human health and the environment.  
 25 You can visit with Dr. Cooper about

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1 necessary. The department has approved that  
 2 under numerous sites, both with and without  
 3 landowner consent, and so that's our primary  
 4 evaluation.  
 5 The conditions at both the school  
 6 board property and on Levert support monitored  
 7 natural attenuation, and that's an evaluation  
 8 primarily done by Dr. Cooper.  
 9 Q. So do you think it's likely that the  
 10 DNR will also determine that no MNA is required  
 11 on the Levert property?  
 12 A. Yes. I fully expect the department  
 13 to consider and to approve the RECAP standards.  
 14 They have done so on numerous sites to where no  
 15 active remediation would be necessary, but we  
 16 have also included an evaluation in support that  
 17 monitored natural attenuation is -- is a feasible  
 18 option as evaluated by Dr. Cooper.  
 19 Q. But you would expect that, as DNR  
 20 did on the school board property, they will not  
 21 require MNA on the Levert property, correct?  
 22 MR. TROUTMAN:  
 23 Object -- object to form.  
 24 THE WITNESS:  
 25 Based on my experience with the

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1 it, but the conditions at Iberville would be the  
 2 same here as to whether an MNA is a feasible  
 3 plan, but at the same time, our evaluation, the  
 4 primacy is focused on the RECAP standards.  
 5 Q. So you didn't implement MNA at the  
 6 school board property; is that fair?  
 7 A. That's fair. We have not presented  
 8 the MNA plan to the department on that.  
 9 Q. In general, were the groundwater  
 10 constituents greater or less than or about the  
 11 same as on the Levert property?  
 12 A. Without going into the data  
 13 themselves, my recollection is that there were  
 14 concentrations that are higher west of limited  
 15 admission Area No. 1 on the school board property  
 16 than what was found on the Levert property  
 17 supporting the conclusion we made earlier, the  
 18 source being the offsite pit on the school board  
 19 property in limited admission Area 1 only.  
 20 Q. So why would you need to use MNA on  
 21 the Levert property since you didn't need to use  
 22 it on the school board property?  
 23 A. Well, again, our evaluation  
 24 considers that RECAP, that no active remediation,  
 25 including pump and treat or otherwise, is

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1 department and the closure letters that we  
 2 have produced, yes, I would think the  
 3 department would consider and approve the  
 4 RECAP standards in a very similar fashion  
 5 -- fashion for the same water-bearing  
 6 zone, same constituents, same site setting  
 7 as done on the school board property,  
 8 yeah.  
 9 BY MR. HUDDLELL:  
 10 Q. Without MNA, correct?  
 11 A. Without MNA, yes.  
 12 Q. Okay. So going back to your table,  
 13 we have got the DAF of 440, and then how do you  
 14 get 110,000 for your limiting RECAP standard?  
 15 A. That would simply be a result of the  
 16 multiplication of the Groundwater 3 standard  
 17 times the dilution and attenuation factor of 440.  
 18 Q. Your -- your starting value of 250,  
 19 that's not from the RECAP tables themselves,  
 20 correct?  
 21 A. That's correct. So RECAP handles  
 22 salinity as a nontraditional parameter; and a  
 23 comparative standard for that is, under our  
 24 evaluation, the EPA drinking water standards.  
 25 Q. Okay. Well, although actually here

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1 it looks like maybe you were using the surface  
 2 water criteria which just happened to be the  
 3 same?  
 4 A. Oh, I'm sorry. Yeah. You're right.  
 5 We are using surface water criteria. Thank you  
 6 for drawing that to my attention.  
 7 It's the same number. Sometimes you  
 8 kind of trip over it, but you can use drinking  
 9 water background or surface water criteria, the  
 10 three that you normally did. And under a GW-3  
 11 scenario, shallow zones, we consider the drinking  
 12 water standard -- I'm sorry, the surface water  
 13 criteria under the DEQ regulations because in the  
 14 hypothetical scenario where you would potentially  
 15 discharge into surface water, which is not here,  
 16 you would want to be protective of that criteria  
 17 under surface water.  
 18 Q. Would you agree that there's --  
 19 there's some hydrologic connection between the  
 20 canals and the surface water and the groundwater  
 21 at this site?  
 22 A. We classified that or evaluated that  
 23 as what's determined as a disconnected stream  
 24 scenario. The -- the water-bearing silts within  
 25 the 12- to 15-foot zone, that general depth are

83

1 And that was determined by a series  
 2 of surveys by a registered land surveyor of the  
 3 surface water elevation, the depth of the canals,  
 4 the depth from a survey point to the silt --  
 5 water-bearing silts. Excuse me. It's been well  
 6 evaluated on both sets of properties; the school  
 7 board and the Levert property.  
 8 MR. HUDDLELL:  
 9 I want to mark as Exhibit 7 a -- a  
 10 March 31, 2016 report.  
 11 (Exhibit 7 marked and tendered.)  
 12 BY MR. HUDDLELL:  
 13 Q. Have you seen this before?  
 14 A. Yes. This was co-authored by  
 15 myself. This is the expert report, if I --  
 16 memory serves, within the school board property  
 17 that was produced during litigation.  
 18 Q. All right. And so this is just  
 19 excerpted, some excerpted pages from it. I  
 20 wanted to go to the third page, which is Bates  
 21 labeled August Levert BP plan 3048. Do you see  
 22 that?  
 23 A. Yes, sir.  
 24 Q. Okay. And this is Figure 5 from  
 25 your report, correct, from that report?

82

1 beneath and deeper than the depth of the canals  
 2 and so they don't have the ability to discharge  
 3 into the canals.  
 4 But it is possible and likely, based  
 5 on our evaluation, that the canals themselves are  
 6 serving as almost like a hydraulic loading and to  
 7 where they can get some seepage across the  
 8 confining clays in these weathered shallow clays  
 9 to serve as a -- a re-charge to these zones; but  
 10 these zones are not in direct hydraulic  
 11 communication nor do they have the capability of  
 12 discharging into the surface water-bearing zones  
 13 as defined by RECAP.  
 14 Q. So you're saying it's not direct  
 15 hydraulic communication, it is instead what?  
 16 A. We termed it in the report as a  
 17 disconnected stream scenario. So you can have a  
 18 surface water body that has the potential to  
 19 hydraulically load, for lack of a better term,  
 20 the -- the clays and serve as a recharge to these  
 21 zones within the shallow weathered soils, but  
 22 that it is not in direct hydraulic communication.  
 23 The silts are not touching the surface water.  
 24 There's no way for it to discharge into the  
 25 surface water.

84

1 A. That's correct, yes.  
 2 Q. Okay. And it appears that location  
 3 SB-09, there's actually two SB-09s, but the one  
 4 that -- that includes a monitoring well is right  
 5 on the property boundary; is that fair?  
 6 A. That's correct. And just to note  
 7 that there is a discrepancy within the property  
 8 boundary. It's determined from the topo versus  
 9 the assessor's office, and so that -- that line  
 10 is subject to a little bit of fluctuation; and  
 11 the Levert property, we evaluated that same  
 12 difference in the property boundary line.  
 13 Q. Okay. And -- and has HET determined  
 14 what -- what they think is the most appropriate  
 15 or most correct property line?  
 16 A. I don't know if we determined most  
 17 correct, but we -- because of certain -- where we  
 18 see the topo can change based on its -- the way  
 19 that it's portrayed and pulled into the ArcGIS  
 20 mapping program, we went with the assessor's  
 21 office, the data. Considering I didn't want it  
 22 to be overly corrected, we would default to an  
 23 actual survey boundary as a term correct, but for  
 24 our purposes, we used the assessor's office.  
 25 Q. If you wanted to determine the

85

1 accurate or most accurate boundary, what -- what  
 2 would you do?  
 3 A. I would hire a registered land  
 4 surveyor to do a boundary survey.  
 5 Q. Who would you recommend?  
 6 A. There are several qualified in the  
 7 state, I can imagine, but the surveyor that we  
 8 have used with boundary discrepancies has been  
 9 M.P. Mayeaux, the same that performed the  
 10 evaluation of the depths of the canals and the  
 11 surveyed locations of the monitoring wells. We  
 12 use them often.  
 13 Q. What's the name of -- what's their  
 14 name again?  
 15 A. M.P. Mayeaux. It's referenced in  
 16 our report too.  
 17 MR. ARCENEUX:  
 18 It's M-A-Y-E-A-U-X probably just  
 19 like it sounds, you know.  
 20 THE WITNESS:  
 21 I would agree with that statement.  
 22 MR. HUDDALL:  
 23 Okay.  
 24 THE WITNESS:  
 25 They -- not only do they perform,

87

1 A. That's correct.  
 2 Q. And it's a little bit hard to read  
 3 or a lot hard to read, but --  
 4 A. Yeah. Forgive the formatting of the  
 5 older tables.  
 6 Q. If we -- if we turn to Bates number  
 7 3065 -- are you there?  
 8 A. Yeah.  
 9 Q. We have groundwater data for SB-9.  
 10 Do you see that?  
 11 A. I do, yes.  
 12 Q. And HET found 11,800 milligrams per  
 13 liter -- per liter at SB-9, correct?  
 14 A. Yes.  
 15 Q. For chlorides, right?  
 16 A. That's correct.  
 17 Q. Okay.  
 18 MR. TROUTMAN:  
 19 I think that's 600, Kevin.  
 20 MR. HUDDALL:  
 21 Oh. 11,600.  
 22 THE WITNESS:  
 23 Well, I can't read it, so --  
 24 MR. HUDDALL:  
 25 Yeah, okay. Okay. Okay.

86

1 you know, the depths and -- and survey  
 2 locations of our wells, but we have used  
 3 them before in several cases to help with  
 4 the actual property boundary  
 5 determination.  
 6 BY MR. HUDDALL:  
 7 Q. Okay. But -- but so far at least in  
 8 -- in the school board case, you -- no one hired  
 9 a property boundary surveyor?  
 10 A. Not that I'm aware of. I don't  
 11 recall, but I don't think so.  
 12 Q. Okay. And do you know if one's been  
 13 hired for this case?  
 14 A. Not that I'm aware --  
 15 Q. Okay.  
 16 A. -- within the capacity of  
 17 determining property boundary lines.  
 18 Q. Okay. Is -- do you know whether the  
 19 boundary depicted on Exhibit 7, Figure 5, the --  
 20 the east/west boundary, is that the same as what  
 21 you are using in your report?  
 22 A. I believe so, yes.  
 23 Q. Okay. All right. So the SB-9  
 24 location is based right on the property boundary,  
 25 correct?

88

1 THE WITNESS:  
 2 It's 11,000, looks to be 600.  
 3 BY MR. HUDDALL:  
 4 Q. Okay. And we have 24,400 milligrams  
 5 per liter TDS, correct?  
 6 A. That's correct, from what I can  
 7 tell, yes.  
 8 Q. And we have barium concentrations of  
 9 3.31 milligrams per liter, correct?  
 10 A. That's correct.  
 11 Q. The barium exceeds the DEQ screening  
 12 standard for barium -- barium concentration,  
 13 right?  
 14 A. Right. Assuming a groundwater  
 15 drinking water zone which had been determined to  
 16 meet RECAP standards.  
 17 Q. Okay. And the chlorides and TDS,  
 18 those exceed the US EPA secondary drinking water  
 19 standards, correct?  
 20 A. That's correct.  
 21 Q. And this is data that HET collected  
 22 in August of 2015, correct?  
 23 MR. TROUTMAN:  
 24 I think that's June, June.  
 25 MR. HUDDALL:

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1 Oh. June, June of 2015.  
 2 THE WITNESS:  
 3 Yeah. Sorry. These are intended to  
 4 be on 11 by 17, so some timeframe there.  
 5 BY MR. HUDDLELL:  
 6 Q. Okay. All right. So in June of  
 7 2015, HET analyzed a split sample from SB-9,  
 8 correct?  
 9 A. Yes.  
 10 Q. Okay. And -- and the results we  
 11 just went over, that's from that -- that split  
 12 sample, correct?  
 13 A. That's correct.  
 14 Q. All right. Now, if we were to -- if  
 15 we were to overlay the limited admission area  
 16 over the -- the SB-9 or vice versa, if we were to  
 17 -- if we were to place SB-9 on your -- one of  
 18 your limited admission Area 1 maps, would SB-9 be  
 19 within the limited admission area?  
 20 A. It appears that SB-9 would be on the  
 21 property boundary which would serve the -- as the  
 22 western boundary of the limited admission area.  
 23 If not on it, it would be close --  
 24 Q. Okay. All right.  
 25 A. -- based on this location. Because

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1 the --  
 2 A. I mean, this is an extremely general  
 3 location --  
 4 Q. Sure.  
 5 A. -- because I'm -- I'm not comparing  
 6 apples to apples, same scale, same aerial date,  
 7 etc.  
 8 Q. I understand.  
 9 A. But it appears to be somewhere right  
 10 here.  
 11 Q. Okay. Okay. And you just marked  
 12 that --  
 13 A. I did.  
 14 Q. -- general location in red, correct?  
 15 A. Yeah, again, to the same limitations  
 16 I just stated; and, again, noting that SB-9 is  
 17 also a -- not a surveyed.  
 18 Q. Well, could you write what that is  
 19 then, like the potential location of SB-9 or  
 20 something like that, right?  
 21 MR. ARNOLD:  
 22 How about approximate?  
 23 MR. HUDDLELL:  
 24 Approximate.  
 25 THE WITNESS:

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1 these locations that you have here are from ICON,  
 2 and you can -- you can tell there's a difference  
 3 between the soil boring SB-9 and the monitor well  
 4 SB-9. Those are all temporary in nature. I'm  
 5 not sure that those were actually surveyed.  
 6 So those are based on hand GPS  
 7 units, which are subject to some discrepancy of  
 8 -- it could be generally 9 to 15 feet, so those  
 9 aren't surveyed locations, those are handheld  
 10 locations. But in general, it's along the  
 11 eastern property boundary of the school board  
 12 property.  
 13 Q. If we look at for -- if we now also  
 14 look at Figure 8 from your November 3rd, 2022  
 15 report, would you be able to maybe mark with a  
 16 pen the most likely general area that the -- the  
 17 SB-9 would have been?  
 18 A. That would be hard to do based on  
 19 the scale and the difference in aerials.  
 20 Q. Okay. But you think it would  
 21 generally be along that property boundary  
 22 somewhere between the southernmost and  
 23 northernmost part of limited admission Area 1?  
 24 A. Yes.  
 25 Q. So maybe you could just circle

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1 (Complied.) Yeah. Given the  
 2 difference in the aerials, the fact that  
 3 SB-9 was not surveyed, the -- and, you  
 4 know, the difference in scale, it's hard  
 5 for me to give an exact location.  
 6 BY MR. HUDDLELL:  
 7 Q. You think the -- the monitoring well  
 8 that was put in at SB-9 wasn't surveyed?  
 9 A. All of the monitoring wells both on  
 10 the school board and on Levert property installed  
 11 by ICON were temporary in nature.  
 12 Q. Okay. Okay. Mr. Pooler, one --  
 13 another document that was part of what you  
 14 submitted for your limited admission plan was a  
 15 site assessment report for the Iberville Parish  
 16 School Board property dated October 13th, 2017.  
 17 Do you remember that?  
 18 A. Yes. That was, if I recall  
 19 correctly, the report issued in response to the  
 20 conservation order that the department sent to  
 21 several entities, including W&T Offshore, Houston  
 22 Oil & Gas and BP.  
 23 Q. Well, let's mark that compliance  
 24 order.  
 25 A. I believe there were three.

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1 Q. Right. There were three, and I  
 2 think they all said the same thing.  
 3 MR. HUDDLELL:  
 4 I'm just going to mark the one that  
 5 went to BP America Production Company.  
 6 Mark this as Exhibit 8.  
 7 (Exhibit 8 marked and tendered.)  
 8 BY MR. HUDDLELL:  
 9 Q. Is Exhibit 8 one of the compliance  
 10 orders that you're referring to in your report?  
 11 A. I believe so, yes; but what was the  
 12 date of the report that you just referenced  
 13 again? It was -- it postdated this letter,  
 14 right?  
 15 Q. Yes. This -- this -- the report I'm  
 16 referring to was October 13th, 2017.  
 17 A. Yes. It appears to be so, yes.  
 18 Q. Okay.  
 19 A. This is one of the three  
 20 conservation orders issued post settlement to the  
 21 three entities that we were performing the work  
 22 on the school board property on behalf of.  
 23 Q. And -- and this orders BP to do  
 24 various things, including develop a plan to  
 25 address certain compliance issues regarding

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1 have the -- the timeframe and penalties  
 2 associated with it that a compliance order  
 3 does. This is issued post settlement  
 4 scenario.  
 5 And, second, the department has  
 6 asked for us to either further evaluate  
 7 and/or remediate the constituents that  
 8 were exceeding Chapter 3 standards for  
 9 further evaluation to determine the  
 10 appropriate path toward closure.  
 11 BY MR. HUDDLELL:  
 12 Q. And BP was -- was ordered to provide  
 13 a site investigation evaluation and/or  
 14 remediation plan, correct?  
 15 MR. TROUTMAN:  
 16 Object to form.  
 17 THE WITNESS:  
 18 Yes. In general, BP and the other  
 19 entities subject to the order, separate  
 20 orders were asked to submit a site  
 21 investigation evaluation or remediation  
 22 plan to the agency; and as part of the  
 23 October document that you just referenced,  
 24 we submitted a report that was very, very  
 25 similar to the expert report to them. Our

94

1 Chapter 3 of 29-B; is that right?  
 2 MR. TROUTMAN:  
 3 Object to the form.  
 4 THE WITNESS:  
 5 Can you let me know which one you  
 6 are referring to, what bullet point, what  
 7 number?  
 8 BY MR. HUDDLELL:  
 9 Q. I'm looking at basically just  
 10 generally 1 -- 1 through 4.  
 11 A. Okay. And can you repeat your  
 12 question again? I'm sorry.  
 13 Q. Yeah. I'll try to ask a better  
 14 question.  
 15 So generally there's -- there's --  
 16 this is a compliance order from -- from the DNR  
 17 to BP with respect to some compliance issues for  
 18 the school board property, correct?  
 19 MR. TROUTMAN:  
 20 Object to form.  
 21 THE WITNESS:  
 22 In general, yes. It's a  
 23 conservation order, not a compliance  
 24 order. The difference between there is  
 25 typically a conservation order doesn't

96

1 evaluation done during litigation was the  
 2 same conclusions and evaluation done as  
 3 part of the post settlement obligations.  
 4 BY MR. HUDDLELL:  
 5 Q. Okay. No. 6 of the order part of it  
 6 says "The plan shall demonstrate that the  
 7 vertical and horizontal extent of all applicable  
 8 Chapter 3 parameters and/or RECAP constituents of  
 9 concern has been fully delineated for all  
 10 impacted media and all AOIs and/or AOCs,"  
 11 correct?  
 12 A. That's correct. Yes.  
 13 Q. Right. And as part of that, you --  
 14 "you" being HET -- submitted a report dated  
 15 October 13, 2017. And, unfortunately, I don't  
 16 have it printed out, but I have it on the  
 17 computer. And so --  
 18 MR. TROUTMAN:  
 19 Kevin, we can -- we can print that  
 20 for you, if you -- do you want to send me  
 21 the link, we can do that. We can take a  
 22 brief --  
 23 MR. HUDDLELL:  
 24 Well. Let's see if we can get  
 25 through it like this.

97

1 MR. TROUTMAN:  
 2 Okay. What's the Bates number on  
 3 that?  
 4 MR. HUDDLELL:  
 5 Yeah.  
 6 MR. ARNOLD:  
 7 8047.  
 8 BY MR. HUDDLELL:  
 9 Q. And so show it to you. (Tendered).  
 10 A. Right. That's the report you just  
 11 referenced, yes.  
 12 Q. Okay. And if -- if you -- you can  
 13 look at as much or as little of it as you want,  
 14 but if you go to page 363, which is -- it's like  
 15 the second to last page.  
 16 A. Okay.  
 17 Q. Is that a -- a map there?  
 18 A. Yes.  
 19 Q. Okay.  
 20 A. This map is a demonstration of those  
 21 areas to which we were to conduct pit closure  
 22 and/or soil remediation activities --  
 23 Q. Okay.  
 24 A. -- as well as proposed delineation  
 25 borings.

99

1 sorry.  
 2 THE WITNESS:  
 3 It's page 8409 on the Bates label.  
 4 It's 363 of 365 of the October --  
 5 MR. TROUTMAN:  
 6 8409?  
 7 THE WITNESS:  
 8 8409, yeah, I think. Is that an  
 9 8409? Let's see.  
 10 MR. TROUTMAN:  
 11 Or is it 8049?  
 12 THE WITNESS:  
 13 8409.  
 14 MR. TROUTMAN:  
 15 Okay. What is the document?  
 16 THE WITNESS:  
 17 It's Figure N-1. It shows our  
 18 proposed remediation areas and our  
 19 proposed delineation soil sample  
 20 locations.  
 21 MR. TROUTMAN:  
 22 Okay. Okay. I'm there, Figure N-1.  
 23 BY MR. HUDDLELL:  
 24 Q. Okay. One of those proposed borings  
 25 was PB-5, correct?

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1 MR. HUDDLELL:  
 2 Okay. John, do you want to take a  
 3 look?  
 4 MR. TROUTMAN:  
 5 Yeah. I'm pulling -- give me one  
 6 second.  
 7 MR. HUDDLELL:  
 8 Sure.  
 9 MR. TROUTMAN:  
 10 I'm pulling it up.  
 11 THE WITNESS:  
 12 There you go. (Tendered).  
 13 MR. HUDDLELL:  
 14 Oh, no. Keep it there.  
 15 THE WITNESS:  
 16 You want me to keep that?  
 17 MR. HUDDLELL:  
 18 Yeah.  
 19 MR. TROUTMAN:  
 20 Yeah. Let me just --  
 21 THE WITNESS:  
 22 It's 8409, John.  
 23 MR. TROUTMAN:  
 24 Yeah. It's the one that's the March  
 25 filing. What page is the map on? I'm

100

1 A. That's correct.  
 2 Q. And that was on the Levert property  
 3 to the east, correct?  
 4 A. That's correct, yes.  
 5 Q. Do you know if that proposed boring  
 6 was ever installed?  
 7 A. It was not, no.  
 8 Q. Why wasn't it?  
 9 A. Well, there were several factors.  
 10 First, ICON during its 2015 report,  
 11 thereabouts --  
 12 Q. Yeah.  
 13 A. -- their expert report in the school  
 14 board property, based on the geology and surface  
 15 lithology -- excuse me -- at the time had opined  
 16 that this shallow water-bearing zone had pinched  
 17 out to the east along the property boundary.  
 18 And, second of all, the main reason  
 19 it was not installed is there -- by the time we  
 20 submitted the October 17th report, received  
 21 approval to do the field work and executed the  
 22 agreements amongst the three parties subject to  
 23 the separate conservation orders, at that time,  
 24 ICON had already installed LT-1 at the property  
 25 or was doing their work, if I recall correctly,

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1 but the property was under litigation and we  
 2 brought that to the department's attention.  
 3 Q. Well, so the -- the litigation  
 4 wasn't brought until I believe June of 2019.  
 5 A. Right. And when did we do our work?  
 6 Because there was -- well, first of all, this  
 7 plan was submitted for delineation purposes; and  
 8 by the time you executed the agreements and were  
 9 -- and were in the field, there was a several  
 10 year delay on that field work.  
 11 Q. At the school board property?  
 12 A. At the school board property, yeah.  
 13 Q. Okay.  
 14 A. Our delineation work -- and let's  
 15 see. I don't have that in front of me right  
 16 offhand, but there was a -- again, between the  
 17 department approval of October late 2017 report  
 18 and to where we were doing that delineation work,  
 19 we were actually in some instances onsite, if I  
 20 recall, at very similar timeframes as far as the  
 21 post settlement work at Iberville and the work  
 22 that was -- had been started at Levert, if I  
 23 remember correctly. I can look up those dates  
 24 for you and get a definitive answer, but by the  
 25 time we had started our delineation work and

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1 A. That's correct.  
 2 MR. TROUTMAN:  
 3 Object to form.  
 4 THE WITNESS:  
 5 And it was done in general as a  
 6 conservative nature because from the lens  
 7 that you're looking from at that  
 8 timeframe, there were data in ICON's --  
 9 even ICON's conclusion that that  
 10 water-bearing zone, because of the  
 11 discontinuous nature and the differences  
 12 and thicknesses over the site, it actually  
 13 pinched out on the eastern property  
 14 boundary of the school board, which is the  
 15 northwest property of Levert; and so we  
 16 proposed that as a conservative nature,  
 17 but, again, from that timeframe, it was  
 18 believed that the shallow water-bearing  
 19 zones pinched out shortly at the property  
 20 line.  
 21 BY MR. HUDDLELL:  
 22 Q. Okay. We also have SB-9 basically  
 23 on the property line that -- that had rather high  
 24 chloride levels, correct?  
 25 A. That's correct. And that was the

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1 started working back and forth to get that data,  
 2 the site had already been under lawsuit.  
 3 And LT-1, if I'm not mistaken, was  
 4 installed in September of 2019, so our  
 5 delineation assessment report was dated -- yeah.  
 6 Our delineation assessment report was dated March  
 7 of 2022; so by the time we finished the  
 8 delineation and got that to the department  
 9 through the iterative process of doing an  
 10 assessment, that would post date the litigation  
 11 and the installation of LT-1.  
 12 Q. Okay. So because of LT-1 being  
 13 installed in 2019, you've told the agency that  
 14 you didn't need to do PB-5; is that right?  
 15 A. I don't recall specifically saying  
 16 we didn't install PB-5, but -- didn't need to,  
 17 but based on our discussions with the department  
 18 on the data and the status of the neighboring  
 19 property, it was determined that that was not  
 20 needed to -- to evaluate and to close the  
 21 property because of the status and assessment  
 22 data that we had on Levert.  
 23 Q. When -- when you proposed PB-5, that  
 24 was to delineate the eastern boundary of  
 25 potential groundwater contamination?

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1 reason for the conservative depiction of the  
 2 proposed location from PB-5, but it was ICON's  
 3 maps and conclusions in their report for the  
 4 expert report that that water-bearing zone  
 5 pinched out along that property line at the time.  
 6 And, again, we didn't identify any  
 7 soil data on Levert property. It was only within  
 8 the saturated zone as it results to groundwater.  
 9 So, in fact, that soil data from LT-1 would  
 10 delineate the -- the source soils as being on the  
 11 Levert property only. I'm sorry. On the school  
 12 board property.  
 13 MR. HUDDLELL:  
 14 Yeah. Could we attach that -- I'll  
 15 send it around -- as Exhibit 9?  
 16 (Exhibit 9 marked for identification.)  
 17 MR. TROUTMAN:  
 18 Yes. We can attach the whole  
 19 report; is that okay?  
 20 MR. HUDDLELL:  
 21 Sure.  
 22 MR. TROUTMAN:  
 23 Yeah.  
 24 BY MR. HUDDLELL:  
 25 Q. Okay. We are actually getting close

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1 to done.  
 2 MR. TROUTMAN:  
 3 Okay.  
 4 MR. HUDDLELL:  
 5 I wanted to mark this then as  
 6 Exhibit 10, and another appendix from your  
 7 report.  
 8 (Exhibit 10 marked and tendered.)  
 9 BY MR. HUDDLELL:  
 10 Q. Can you tell us what this appendix H  
 11 is?  
 12 A. Yes. These maps contained in  
 13 appendix H are the soil and groundwater  
 14 concentration maps styled at the request of the  
 15 department to help them -- help is probably not  
 16 the right term, but I'll say help -- help them  
 17 graphically depict the boring locations and the  
 18 data associated with it. It's a requirement for  
 19 agency's submittal reports.  
 20 Q. What areas is the first one for?  
 21 This is Area 2?  
 22 A. Yes.  
 23 Q. Okay. The second one is Area 3?  
 24 A. That's correct.  
 25 Q. The third one is also Area 3?

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1 is typically used as the most representative data  
 2 especially when you have turbid conditions, and  
 3 neither chromium or lead were confirmed in the  
 4 dissolved sample.  
 5 Q. Okay. So do you -- you think that  
 6 the chromium that was found at LT-3 was or was  
 7 not associated with oilfield activity?  
 8 A. It doesn't appear to be associated  
 9 with oilfield activity. If it was, and you would  
 10 have found that in the dissolved sample.  
 11 Similarly for lead and, hell, similarly -- excuse  
 12 my language, but similarly for selenium in the  
 13 sense that selenium wasn't confirmed in either  
 14 the total or dissolved sample from HET. So  
 15 between lab results and the difference between  
 16 the total and dissolved, I don't find those to be  
 17 constituents of concern.  
 18 We did, of course, include that in  
 19 our RECAP standards under the evaluation as a  
 20 conservative standpoint, but in -- in general, I  
 21 think that's a well construction issue or a  
 22 turbidity issue.  
 23 Q. All right. Let's go back to -- I  
 24 forget what exhibit it is, but it's the exhibit  
 25 that has the figures from your report, your

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1 A. That's correct. It's separated out  
 2 by constituent types. Figure H-2 is a soil  
 3 concentration map in limited admission Area 3 of  
 4 the hydrocarbon related constituents, and Figure  
 5 H-3 is the same except for metal parameters.  
 6 Q. Okay. If we go to the last map,  
 7 this is for all -- all three areas; is that  
 8 right?  
 9 A. All groundwater data generated not  
 10 only in the three limited admission areas but  
 11 other areas, including background locations  
 12 depicted by ICON on property not subject to  
 13 lawsuit, but also owned by the Levert property.  
 14 Note that monitoring wells were not installed at  
 15 LT-6 and LT-7 because of water-bearing zone was  
 16 not encountered at those locations.  
 17 Q. Okay. So at limited admission  
 18 Area 3 at LT-3, we also had exceedances of the  
 19 chromium DEQ RECAP screening standard, right?  
 20 A. We did as well as lead in the total  
 21 sample and not the dissolved sample, which is an  
 22 indication of the turbidity of the sample and  
 23 likely associated with construction of the well  
 24 into which a high turbidity resulted in sediment  
 25 effecting the total number. The dissolved number

108

1 November report. And I wanted to look at  
 2 Figure 17.  
 3 A. Okay.  
 4 Q. So I want to look at Figure 17, 18  
 5 and 19. And -- and so what are these figures?  
 6 A. These are potentiometric surface or  
 7 groundwater flow maps indicating the apparent  
 8 trend of movement in the shallow water-bearing  
 9 zone or limited lack of movement, but  
 10 nonetheless, limit or lack of. Excuse me.  
 11 Q. Okay. And so for Figure 17, we have  
 12 got groundwater elevations that were measured on  
 13 the school board property, correct?  
 14 A. That's correct. This report was --  
 15 or excuse me. This water measurement event was  
 16 measured during the time of litigation and  
 17 included in our expert report.  
 18 Q. And it -- it shows that there's flow  
 19 from the Levert property towards the school board  
 20 property, correct?  
 21 A. Well, what it's really showing is a  
 22 hydraulic loading from the canals in our data.  
 23 The two lowest potentiometric surface  
 24 measurements were at four and five in the central  
 25 portion and elevated along the -- and -- and

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1 adjacent to the canals and in the canals. So you  
 2 see you have surface water elevations that are  
 3 pretty consistent at 1.9, and what we felt here  
 4 was is that there was groundwater flow in the  
 5 disconnected stream that we talked about from  
 6 that hydraulic loading of the shallow  
 7 water-bearing silts from the canal. So it -- it  
 8 shows -- I guess if you had to pick a direction  
 9 in the southern direction, because it's showing  
 10 eastern on the school board property and western  
 11 on Levert from that hydraulic loading.  
 12 Q. Well, the -- what I had trouble with  
 13 was it didn't seem like you had any water  
 14 elevation measurements to the east of the  
 15 property out there.  
 16 A. Right. So what we're using -- I'm  
 17 sorry. Did you finish your --  
 18 Q. I did.  
 19 A. Okay. I'm sorry to interrupt you,  
 20 if I did.  
 21 What we're using here is the surface  
 22 water elevations measured in the canals; and the  
 23 fact that the hydraulic gradient between No. 4  
 24 and 5 are identical, they are pretty much the  
 25 same statistically there, and there -- what we

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1 previous groundwater flow event that the  
 2 elevation of the -- or the potentiometric surface  
 3 -- excuse me -- in monitoring wells closest to  
 4 the canals are higher than what you are seeing in  
 5 the central portion of the property away from the  
 6 canals. Same type of scenario, just more data.  
 7 Q. Well, MW-4 is very much in the  
 8 center and MW-5, those are a lot higher than  
 9 MW-3, MW-2, MW-1?  
 10 A. That's correct. In the center  
 11 portion, that MW-2 and 3, you are seeing a low  
 12 point.  
 13 Q. I see what you're saying.  
 14 A. Uh-huh (affirmatively).  
 15 Q. All right. But, again, we -- all  
 16 right. So we don't -- we still don't have any --  
 17 any -- in December of 2020, we still don't have  
 18 any data from the Levert property, right?  
 19 A. That's correct. In fact, I don't  
 20 think we have data to this day, but nonetheless,  
 21 as far as potentiometric surface.  
 22 Q. Okay. So then Exhibit 20?  
 23 A. I'm sorry. You are on Figure 19?  
 24 Q. I'm sorry. Figure 19.  
 25 A. Okay.

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1 are seeing here is we are seeing that hydraulic  
 2 loading. And while we don't have a groundwater  
 3 elevation itself on Levert, it -- we opined at  
 4 that time that that was the hydraulic loading  
 5 from the canals. Each canal would serve as that  
 6 loading and force a flow away from the canals.  
 7 Q. But -- but you were -- you had no  
 8 data other than the -- the canal water elevation  
 9 to -- to support that -- that, right?  
 10 A. In a sense, yes. We didn't have  
 11 actual measured groundwater elevation data from  
 12 the Levert property, but we had both a cross  
 13 section and lithologic support as well as the  
 14 potentiometric data from the Iberville property  
 15 in addition to the surface water that supported a  
 16 general flow away from the canals at that time  
 17 particular and measuring event.  
 18 Q. Okay. Let's go to Figure 18.  
 19 A. (Complied.)  
 20 Q. What is Figure 18 showing us?  
 21 A. It is showing the general  
 22 groundwater flow direction that we are seeing  
 23 with additional delineation sample points  
 24 installed as part of the delineation sampling  
 25 event, which basically somewhat supports the

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1 Q. So we just did 18. Now, we are at  
 2 Figure 19. This is further survey data that you  
 3 did in July of this year; is that right?  
 4 A. That's correct.  
 5 Q. Okay. And -- and what's going on  
 6 that's different in July of 2022 versus December  
 7 of 2020?  
 8 A. It's my evaluation that the data  
 9 that you are seeing here is a function of some of  
 10 the lowest surface water elevations that we have  
 11 seen in many, many years. The lack of rainfall  
 12 and the reduced surface water elevations in the  
 13 area when we measured this in July, we saw what  
 14 was a western trend and we didn't see as much of  
 15 what I have termed in this deposition as  
 16 hydraulic loading along the edges of the canals  
 17 due to a change in the surface water elevation.  
 18 Q. Did you do any connections of your  
 19 elevations to account for elevated chloride  
 20 levels?  
 21 A. Normally, we do. The -- I'd have to  
 22 double check, though, on this one. We have it in  
 23 our report. I just don't recall right offhand.  
 24 We didn't have groundwater sample data at the  
 25 same time as the water level measurement event,

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1 so I don't think we data corrected it. Normally  
 2 those flow directions are the same, the  
 3 potentiometric surface may be different, but the  
 4 overall flow direction remains the same.  
 5 Let's see here. I can get you that  
 6 answer, but from what I recall right now in  
 7 working to develop these maps, that we didn't  
 8 data correct every one of them because we hadn't  
 9 had -- we did not have -- excuse me --  
 10 groundwater data from each event from the school  
 11 board property; but, again, data correction, in  
 12 our experience, has rarely changed the overall  
 13 flow direction.  
 14 Q. I don't recall. What is the -- what  
 15 is the bias, if you have -- if you don't correct,  
 16 is it going to be -- and you've got higher  
 17 chloride concentration, is it going to be overly  
 18 elevated or overly -- or is it going to -- is it  
 19 going to be higher or lower than it should be.  
 20 A. It's my recollection that you would  
 21 end up with -- if you had a higher chloride  
 22 density, that it would depress the water level.  
 23 Q. Okay.  
 24 A. Uh-huh (affirmatively).  
 25 Q. Could that possibly account for the

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1 A. Because I think this site has been  
 2 evaluated and assessed for several years, and I  
 3 think that the groundwater flow that has been  
 4 determined from Iberville -- I'll just start  
 5 calling it the school board property -- the  
 6 school board property is sufficient for our  
 7 evaluation.  
 8 Q. Okay. Are you -- do you feel  
 9 confident that DNR's not going to require any  
 10 additional soil or groundwater delineation?  
 11 A. I feel confident in that, yes. I  
 12 think the data clearly demonstrate that the soil  
 13 concentrations have been fully horizontally and  
 14 vertically delineated. The groundwater  
 15 concentrations are delineated for the several  
 16 purposes that we talked a moment ago as far as  
 17 using the GEM data, the discontinuous nature, the  
 18 fact that several -- two at least of the borings  
 19 installed by ICON didn't make water, I feel  
 20 confident in that.  
 21 And the groundwater flow, in my  
 22 opinion, has been heavily studied; and since  
 23 there are no downgradient surface water bodies  
 24 capable of receiving discharge, I don't see that  
 25 to be a limiting factor in our overall assessment

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1 -- the 2000 -- 2015 and 2020 contours of the --  
 2 of the potentiometric data in that -- in that  
 3 you've got this, I guess, maybe artificially low  
 4 measurement in the center of where the highest  
 5 chloride concentration is?  
 6 A. I don't believe so, because we have  
 7 evaluated the groundwater flow both on density  
 8 corrective and nondensity corrective data both on  
 9 school board property and Levert.  
 10 The difference was is that we didn't  
 11 have chloride data from the same exact time of  
 12 each measurement event, and so I can get you that  
 13 answer as to whether each map is data corrective  
 14 or only some were data corrective. I don't -- I  
 15 looked at the text of the report and I don't find  
 16 it clear enough to answer that right now, but I  
 17 could get that answer for you.  
 18 Q. Okay. Are you concerned at all that  
 19 DNR is going to want more potentiometric data  
 20 from the Levert property itself?  
 21 A. No. The --  
 22 Q. Okay. Why?  
 23 A. I'm not.  
 24 Q. Why do you think that's not a  
 25 concern?

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1 of groundwater conditions.  
 2 Q. Is your expert report at all -- not  
 3 expert report. Your limited admission plan, is  
 4 it -- is it -- does it rely at all on ICON's  
 5 data?  
 6 A. Oh, absolutely. We take every bit  
 7 of data into consideration, including the split  
 8 sample results, their groundwater sample results.  
 9 We -- we've incorporated all data into our  
 10 evaluation.  
 11 Q. Okay. Does it -- does your plan at  
 12 all rely on any of the opinions that ICON  
 13 expresses in its expert report?  
 14 A. Not that I'm aware.  
 15 Q. Okay.  
 16 A. Again, we take into consideration  
 17 all data generated, but the conclusions,  
 18 evaluation and opinions would be listed in our  
 19 report.  
 20 Q. Okay. So --  
 21 A. I guess the -- in general, we relied  
 22 in part on the their data from their slug tests,  
 23 but that was our own conclusion based on that  
 24 data, for instance.  
 25 Q. Yeah. That's the distinction I was

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1 trying to make here. You are relying on ICON's  
 2 data as -- as part of the whole data set,  
 3 correct?  
 4 A. That's correct.  
 5 Q. But you're not relying on any  
 6 opinions that -- that ICON has with respect to  
 7 that data, correct?  
 8 A. No, not that I can think of.  
 9 MR. HUDDLELL:  
 10 Okay. Can we take a five-minute  
 11 break, and I think --  
 12 MR. TROUTMAN:  
 13 Sure.  
 14 MR. HUDDLELL:  
 15 -- we might be able to wrap up very,  
 16 very quickly.  
 17 MR. TROUTMAN:  
 18 Sounds good.  
 19 THE VIDEOGRAPHER:  
 20 We are off the record. 12:08 p.m.  
 21 (A short recess was taken.)  
 22 THE VIDEOGRAPHER:  
 23 We are back on the record.  
 24 12:17 p.m.  
 25 BY MR. HUDDLELL:

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1 scenario, then it will go into the groundwater or  
 2 the water-bearing zone and -- and load up that  
 3 zone potentially, but once that source is  
 4 stopped, then the predominant natural groundwater  
 5 flow that is effected by the canals would resume.  
 6 Q. So the flow would have been -- back  
 7 when the pit was being used, the flow would have  
 8 been as a result of the -- the groundwater flow  
 9 direction and the concentration gradient; is that  
 10 right?  
 11 A. Not necessarily the concentration  
 12 gradient, but the -- the use of the pit itself  
 13 can alter the flow because of the -- the  
 14 concentrations of chloride being effected in a  
 15 down -- downward loading from the pit itself. So  
 16 not necessarily from the concentration gradient,  
 17 but from a hydraulic loading scenario on the use  
 18 of the pits. Similar but a slight difference.  
 19 Q. Okay. The use of the pit would have  
 20 changed the groundwater flow direction?  
 21 A. Potentially.  
 22 Q. Okay. You also said there's not --  
 23 there's not much movement, so to the extent that  
 24 there is groundwater flow, it's -- it's slow; is  
 25 that what you're saying?

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1 Q. Mr. Pooler, is it your opinion that  
 2 the constituents in the groundwater at the school  
 3 board property are continuing to migrate onto the  
 4 Levert property?  
 5 A. No, it's not. Based on groundwater  
 6 flow directions and the overall limited movement  
 7 within the zone now, the -- the source has been  
 8 closed. I don't see that to be the case.  
 9 Q. To the extent that it -- it -- well,  
 10 it did migrate sometime in the past, correct?  
 11 A. Based on the data, apparently.  
 12 Probably a hydraulic loading scenario, but yes.  
 13 Q. Do you know when it would have no  
 14 longer have migrated onto the Levert property?  
 15 A. I don't have a date, but certainly  
 16 definitively by operations, close of operations,  
 17 but possibly even before then. I don't know. I  
 18 don't have the answer to that.  
 19 Q. Okay. The -- the movement of the  
 20 groundwater constituents to the east onto the  
 21 Levert property would have been a result of the  
 22 concentration gradient; is that -- rather than  
 23 the groundwater flow?  
 24 A. Typically if you're -- you know, the  
 25 pits are active and you have a hydraulic loading

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1 A. Very, yes. The hydraulic gradient  
 2 between the wells and the overall rate of  
 3 movement that we calculated as part of the slug  
 4 test evaluation or aquifer test evaluation is  
 5 very, very limited.  
 6 Q. Okay.  
 7 A. Especially also in consideration,  
 8 not only do these zones just not transit that  
 9 much, which also makes it unfeasible to do a pump  
 10 and treat system, but these zones have been  
 11 determined to be discontinuous.  
 12 Q. Okay. Do you think that the  
 13 groundwater constituents of concern on the Levert  
 14 property are migrating to any significant extent?  
 15 A. No.  
 16 Q. They are basically just staying  
 17 there not moving much at all; is that right?  
 18 A. Very little movement, yes.  
 19 Q. Okay. Would you agree that your  
 20 limited admission plan is not designed to return  
 21 the property to its original company?  
 22 MR. TROUTMAN:  
 23 Object to form.  
 24 THE WITNESS:  
 25 Well, to the extent that calls for a

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1 legal definition of original condition,  
 2 but I would argue that our plan -- the  
 3 property itself is serving as in its  
 4 original condition, and our plan enhances  
 5 that through the -- the pit closure  
 6 activities.  
 7 The property can be utilized for its  
 8 intended purposes. It functions in its  
 9 original condition, the esthetics of the  
 10 property are -- serve in its original  
 11 form. The property itself is serving as  
 12 it -- in its original condition as it is  
 13 now.  
 14 BY MR. HUDDLELL:  
 15 Q. Would you agree that the groundwater  
 16 constituents of certain at the Levert property  
 17 will not be reduced to the natural background  
 18 condition under your plan?  
 19 A. Well, we talked about that a minute  
 20 ago. Our plan, certainly while it takes a  
 21 primary evaluation of RECAP standards to  
 22 determine that no standards are -- I mean, no  
 23 active remediation is necessary, over time, this  
 24 is going to continue to freshen and -- and  
 25 continue to freshen or reduce in constituent

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1 is to have the DNR approve your limited admission  
 2 plan as the most feasible plan, correct?  
 3 MR. TROUTMAN:  
 4 Object to form.  
 5 THE WITNESS:  
 6 Well, our overall goal was to  
 7 determine what needed to be done for the  
 8 property and determine a feasible plan,  
 9 but we expect department concurrence with  
 10 the plan based on our experience with  
 11 them, yes.  
 12 BY MR. HUDDLELL:  
 13 Q. And do you anticipate that you need  
 14 to do any additional work before the DNR would  
 15 adopt your plan as the most feasible plan?  
 16 A. Based on my evaluation, no. I think  
 17 we have more than sufficient data to draw the  
 18 conclusions and opinions that we've presented in  
 19 our report to the agency in a limited admission  
 20 process.  
 21 Q. Are you also planning to submit a  
 22 different plan in the litigation with respect to  
 23 trial?  
 24 MR. TROUTMAN:  
 25 Object to form.

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1 concentrations.  
 2 Our plan is -- from the RECAP side  
 3 is not designed to -- from that aspect, it  
 4 determines, again, no active remediation and the  
 5 background is not the standard, but in an overall  
 6 sense, that doesn't effect the overall use or --  
 7 or original conditions of the property in our  
 8 opinion.  
 9 Q. I understand that. I just want to  
 10 make sure that your limited admission plan is not  
 11 designed to return the groundwater back to its  
 12 natural background condition?  
 13 MR. TROUTMAN:  
 14 Object to form.  
 15 THE WITNESS:  
 16 I guess the same answer that I gave  
 17 to you a minute ago. Again, while we are  
 18 primarily evaluating RECAP standards which  
 19 determine no active remediation is  
 20 necessary, over time under a natural  
 21 attenuation process, this will continue to  
 22 reduce in concentrations as further  
 23 evaluated by Dr. Cooper.  
 24 BY MR. HUDDLELL:  
 25 Q. Do you -- in order to -- your goal

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1 THE WITNESS:  
 2 No. Our plans have been consistent  
 3 throughout litigation, post settlement.  
 4 Whether it's even in litigation, our  
 5 overall evaluation is the same.  
 6 And, for instance, Iberville Parish  
 7 School Board, the virtually identical map  
 8 that was submitted as part of the expert  
 9 report is what we submitted in the -- the  
 10 post settlement report. There will be  
 11 additional opinions and whatnot included  
 12 in our expert report, but the overall  
 13 scope and proposed plan will be identical.  
 14 BY MR. HUDDLELL:  
 15 Q. Why will you have additional  
 16 opinions for the expert report?  
 17 A. Well, as we continue the litigation  
 18 process, there likely will become additional  
 19 opinions, but the one thing that we did not  
 20 address in this report are particularly  
 21 criticisms of the plaintiffs' reports,  
 22 particularly Norman, Rodgers or ICON. That was  
 23 considered outside the scope of this report to  
 24 present those criticisms.  
 25 Q. Okay. Do -- other than that, do you

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1 anticipate needing to do any more work to develop  
 2 your expert report?  
 3 A. At this time, no.  
 4 Q. Okay. If -- if you're -- if the DNR  
 5 doesn't require MNA, would you agree that upon  
 6 completion of your feasible plan there will still  
 7 be oilfield constituents in the groundwater above  
 8 natural background?  
 9 MR. TROUTMAN:  
 10 Object to form.  
 11 THE WITNESS:  
 12 I think that's more of a question  
 13 for Dr. Cooper. He's done more of that  
 14 evaluation than I have.  
 15 MR. HUDDALL:  
 16 Okay. That's all the questions I  
 17 have.  
 18 MR. TROUTMAN:  
 19 No questions?  
 20 THE VIDEOGRAPHER:  
 21 This concludes the deposition. We  
 22 are off the record. 12:28 p.m.  
 23 \* \* \*  
 24  
 25

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1 WITNESS CERTIFICATE  
 2  
 3  
 4 I, BRENT POOLER, do hereby certify that the  
 5 foregoing testimony was given by me, and the  
 6 transcription of said testimony, with corrections  
 7 and/or changes, if any, is true and correct as  
 8 given by me on the aforementioned date.  
 9  
 10  
 11  
 12 \_\_\_\_\_  
 13 DATE SIGNED (Witness' Signature)  
 14  
 15  
 16  
 17 Signed with corrections as noted.  
 18  
 19 Signed with no corrections as noted.  
 20  
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 24 DATE TAKEN: November 21, 2022  
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1 CORRECTION SHEET  
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 19  
 20 WITNESS: BRENT POOLER  
 21 TAKEN ON: NOVEMBER 21, 2022  
 22 BY: CHERIE' E. WHITE, CCR (LA NO. 96002)  
 23 CSR (TX NO 10720)  
 24 CSR (MS NO. 1514)  
 25 RPR (NATIONAL NO. 839452)

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This certification is valid only for a transcript accompanied by my original signature and original seal on this page.

I, CHERIE' E. WHITE, Certified Court Reporter, in and for the State of Louisiana, do hereby certify that Brent Pooler, to whom the oath was administered, after having been duly sworn by me upon authority of R.S. 37:2554, did testify as hereinbefore set forth in the foregoing 129 pages; that this testimony was reported by me in the stenotype reporting method, was prepared and transcribed by me or under my personal direction and supervision, and is a true and correct transcript to the best of my ability and understanding; that I am not related to counsel or the parties herein, nor am I otherwise interested in the outcome of this matter.

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